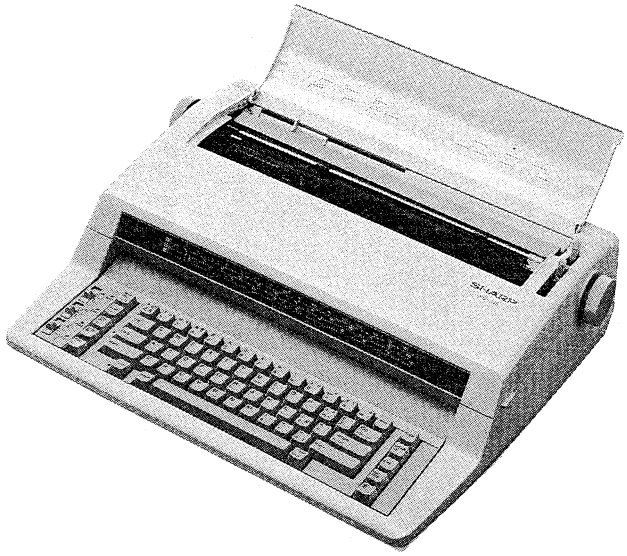
XQ-315U

SHARP SERVICE MANUAL

CODE: 00ZXQ315US/ME



ELECTRONIC TYPEWRITER

MODEL XQ-315

CONTENTS

• Introduction

I MECHANICAL SECTION
1. MECHANICAL ASSEMBLES DESCRIPTION 1
2. MECHANICAL ADJUSTMENT 10
3. MAINTENANCE 17

II ELECTRICAL SECTION
1. CIRCUIT DESCRIPTION 23
2. SETTING AND ADJUSTMENT 33

III TROUBLE SHOOTING 35
1. TROUBLE SHOOTING 35
2. DIAGNOSTIC 39

IV CIRCUIT DIAGRAM 42
1. CIRCUIT DIAGRAM 42
2. PWB LAYOUT 52

V PARTS GUIDE 55

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

INTRODUCTION

This service manual is designed to assist the service technician in the repair of the typewriter.

It contains the information necessary to repair the mechanical assemblies as well as information for voltage checks and circuit board removal.

PRECAUTIONS

1. During disassembly, always be sure the unit is unplugged.
2. Never remove or insert a circuit board with the power on.
3. When repairing a mechanism, be sure to lubricate the specified parts.
4. When removing or working with the logic boards, always protect them from static electricity. Do not permit the batteries to short circuit.

SPECIFICATIONS

	XQ-315
[PRINTER] Printing method:	Impact printing using print wheel
Print wheel:	112 characters (interchangeable)
Average printing speed:	16 characters/second
Print spacing:	10, 12, 15 and PS (characters/inch)
Maximumnumber of printed characters/ line:	110 (10 characters/inch) 132 (12 characters/inch) 165 (15 characters/inch)
Minimum print head movement:	1/120 (inch)
Maximum printing width:	11 (inch) 279.4 (mm)
Maximum paper width:	14.35 (inch) 364.4 (mm)
Paper feed mechanism:	Friction feed
Paper feed increment:	1/6 (inch/line)
Line feed:	1, 1 1/2, 2 (line)
Printing adjustment:	3 levels
Number of copies:	1 original + 4 copies (Pressure sensitive copy paper)
Platen:	Removable 1/12 inch electrical detent
Ribbon:	Correctable carbon ribbon (approx. 80,000 characters)/Multi-strike carbon ribbon (approx. 300,000 characters)/Multi-strike fabric ribbon (approx. 500,000 characters)
Correction tape:	Lift-off tape (approx. 2,000 characters)/Cover-up tape (approx. 2,000 characters)
[CABINET] Color:	Office gray/gray 6.5
[MEMORY] Correction memory:	500 characters
Line format:	3
[KEYBOARD] Typing keys:	48 keys 47 keys
Self-repeat keys	Backspace, space bar, index, reverse index, carrier return, auto correction key (arbitary key) + (REPEAT key)
Function keys:	Margin release, space bar, right margin, half space, left margin, carrier return, tab set, auto correction, tab clear, auto word correction, backspace, decimal tab set, index, keyboard II, reverse index, tab, indent, shift-lock, expess, shift, auto-CR, code key, relocate, repeat, centering, code key operation, automatic carrier return.
Color:	Pearl gray/gray 5.5
[ENVIRONMENTAL CONDITIONS] Voltage:	110V/120V/220V/240V
Frequency:	50Hz/60Hz
Power consumption:	43 W (110V/120V used), 50W (220V/240V used)
Operating temperature:	5° ~ 40°C
Storage temperature:	–20 ~ +60°C
External dimensions:	490mm (width) x 416mm (depth) x 155mm (height)
Weight:	Approx. 19.8 lbs. (9 kg)

Option print wheels

The print wheel applicable varies according to the destination.

Order No.	Name of Type Style	(A) South Africa	(C) Denmark, Finland, Iceland, Norway, Sweden	Algeria, Argentina, Belgium, Brazil, Columbia, Dominica, France, Italy, Panama, Peru, Portugal, Spain, Uruguay, Venezuela	(E) Australia, Canada, Hongkong, Indonesia, Japan, Kuwait, Malaysia, New Zealand, Nigeria, The Philippines, Republic of Korea, Singapore, Sri Lanka, Taiwan, U.S.A., West Indies	(F) Bahrain, Egypt, Greece, Jordan, Lebanon, Netherland, Pakistan, Saudi Arabia, Sudan, Switzerland, U. Arab Emirates, United Kingdom, West Germany	(G) Bahrain, Egypt, Jordan, Kuwait, Lebanon, Orman, Saudi Arabia, U. Arab Emirates
ZX-007	Boldface PS				●		
ZX-020	Prestige Elite 12		●	●	●	●	
ZX-032	Script 12	●			●		
ZX-044	Pica 10				●	●	
ZX-045	Elite 12					●	
ZX-046	Cubic 1012	●	●	●	●	●	
ZX-050	OCR-B		●	●	●	●	
ZX-051	Letter Gothic 12	●			●		
ZX-052	Madeleine PS	●	●	●	●	●	
ZX-064	Cubic 1215				●		
ZX-072	Prestige Pica 10				●		
ZX-078	Cubic PS	●	●	●	●	●	
ZX-079	Courier Italic 12				●		
ZX-086	Cubic Italic 1012				●		
ZX-095	Manifold 10				●		
ZX-097	Bookface Ac. 10				●		
ZX-106	Symbol 12				●	●	
ZX-123	Orator 10 (3.4 mm)		●	●	●	●	
ZX-125	Tile 1215	●	●	●		●	
ZX-128	Script PS					●	
ZX-140	Mercury PS		●	●		●	
ZX-141	Lucienne PS		●	●		●	
ZX-176	Courier 10	●	●	●	●	●	
ZX-177	Courier 12				●	●	
ZX-193	Arabic						●

Note: "●" indicates the type of printwheels available in each zone.

I MECHANICAL SECTION

1. MECHANICAL ASSEMBLIES DESCRIPTION 1
1. Housing Assembly 1
1-1 Removal of the Platen 1
1-2 Removal of the Upper Housing 1
2. Removal of the keyboard Assembly 2
3. Removal of the Printer Main Frame Unit 2
4. Carrier Base 3
4-1 Ribbon Lift Mechanism 3
4-2 Correction Tape Lift Mechanism 3
4-3 Ribbon Feed Mechanism 3
4-4 Correction Tape Feed Mechanism 3
4-5 Ribbon Lift Home Position 4
4-6 Removal of the Carrier 5
4-7 Removal of the Ribbon Cartridge Holder 5
4-8 Removal of the Ribbon Feed Unit 6
4-9 Disassembly of the Gear Holder Unit 6
4-10 Removal of the Print Wheel Motor 7
4-11 Print Wheel Home Positioning Mechanism 7
4-12 Removal of the Hammer 7
5. Carrier Motor Unit 8
5-1 Removal of the Carrier Motor Unit 8
6. Paper Feed Mechanism 8
6-1 Removal of the Paper Feed Mechanism 8
7. Paper Release Mechanism 9
7-1 Removal of the Paper Release Mechanism 9
8. Keyboard Assembly Cautions 9

2. MECHANICAL ADJUSTMENT 10
1. Adjustment of the Belt Tension 10
2. Adjustment of the Carrier Motor Attachment Position 10
3. Adjustment of the Distance Between the Platen and the Hammer 11
4. Parallel Adjustment of the Slide Shaft 12
5. Adjustment of the Home Position of the Print Wheel Motor 13
6. Adjustment of the Hammer Inclination 13
7. Ribbon Lift Cam Home Position Adjustment 14
8. Adjustment of the Ribbon and Correction Tape Lift 14
9. Carriage Home Position Adjustment 15

3. MAINTENANCE 15
1. Periodic Maintenance 15
1-1 Greasing 15
1-2 Retightening of Screws 17
1-3 Cleaning 17
1-4 Inspection Items 17
2. Locations that Require Greasing when Parts are Replaced 19
2-1 Carrier Base 19
2-2 Main Frame 19

II ELECTRICAL SECTION

1. CIRCUIT DESCRIPTION 21
1. Block Diagram 21
2. Memory Map and I/O Address 22
3. Reset Circuit 23
4. Keyboard Interface 24
5. Hammer Circuit 24
6. Pulse Motor Drive Circuit 25
7. Major LSI's block diagram and terminal table 27
8. Power Supply Circuit 34

2. SETTING AND ADJUSTMENT 35
1. Setting 35
2. Hammer Pressure Adjustment 35

III TROUBLE SHOOTING

1. TROUBLE SHOOTING 36
2. DIAGNOSTICS 40

IV CIRCUIT DIAGRAM

1. CIRCUIT DIAGRAM 41
2. PWB LAYOUT 52

1. MECHANICAL ASSEMBLIES DESCRIPTION

1. Housing Assembly

1-1 Removal of the Platen (Figs 1-1, 1-2)

(1) Open the ribbon access cover (1).

(2) Pull the paper bail lever (3) towards you.

(3) Move the separator in the direction of arrow D in Fig. 1-2.

(4) Push latches L and R in the direction of arrow E in Fig. 1-2, unlock the platen and lift it out.

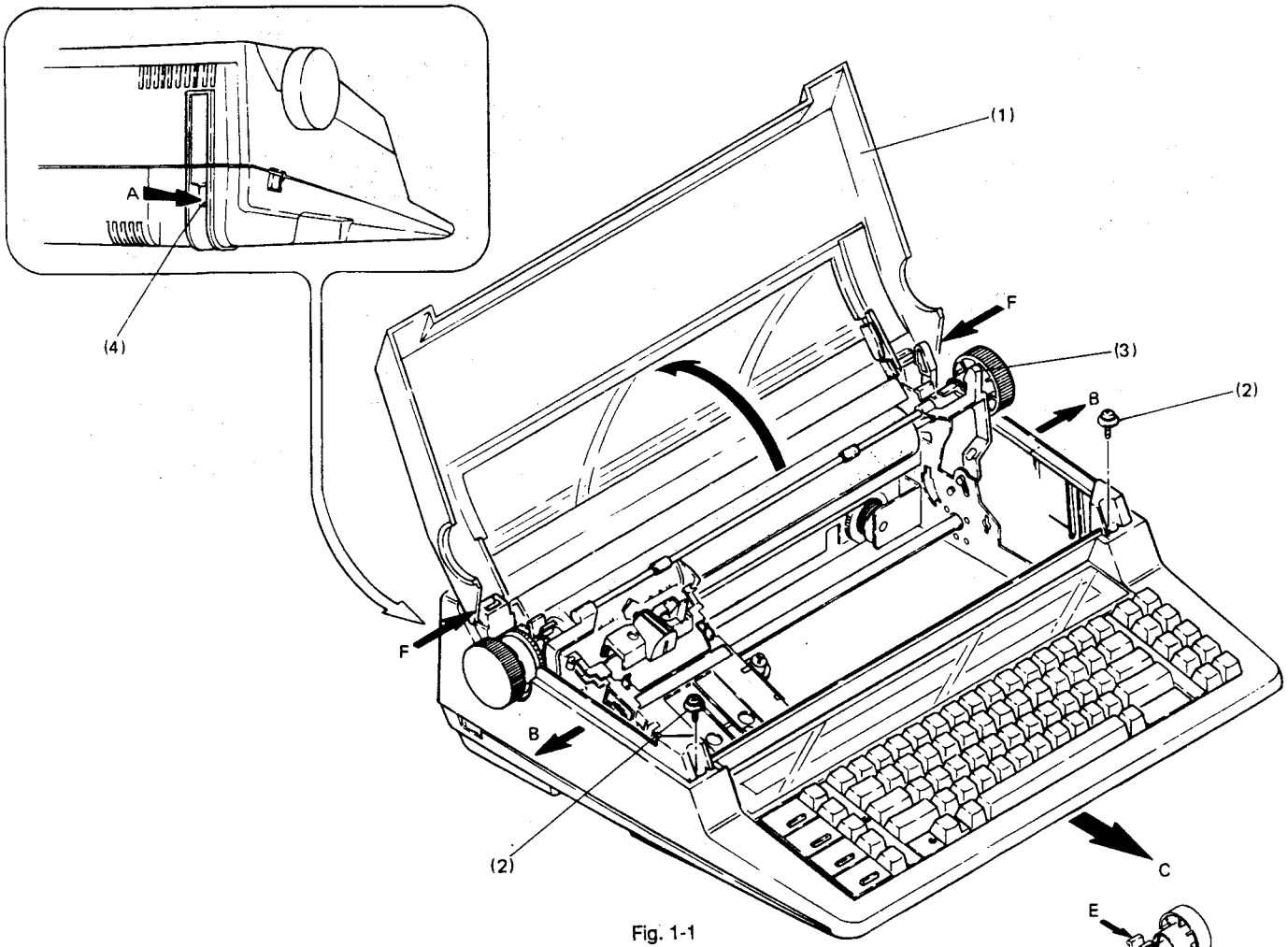


Fig. 1-1

1-2 Removal of the Upper Housing (Fig 1-1)

(1) Remove the two screws (2).

(2) Loosen the indicator holding screw of the carrier and move the indicator 90 degrees to the left.

(3) While pressing the bottom rear cabinet levers (4) on both sides in the arrow direction A, remove hooks on both sides one at a time, remove three hooks on the rear, then life up the rear part of the top cabinet.

(4) Lift up while pushing the top cabinet in the arrow direction B and disengage four hooks on both sides of the cabinet.

(5) While pulling up the top cabinet, pull the front in the arrow direction C, remove five hooks, then remove the top cabinet.

(6) With the ribbon access cover (1) closed, lift up the arrow head F and remove the hook.

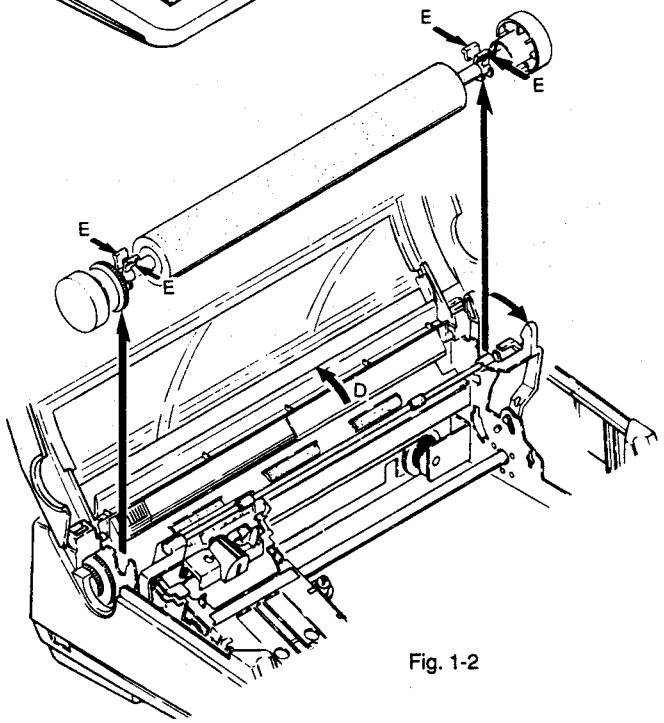


Fig. 1-2

2. Removal of the Keyboard Assembly (Fig. 1-3)

(1) Spread the bottom cabinet securing hooks (1) and lift up the keyboard unit.

(2) Lift up the keyboard assembly.

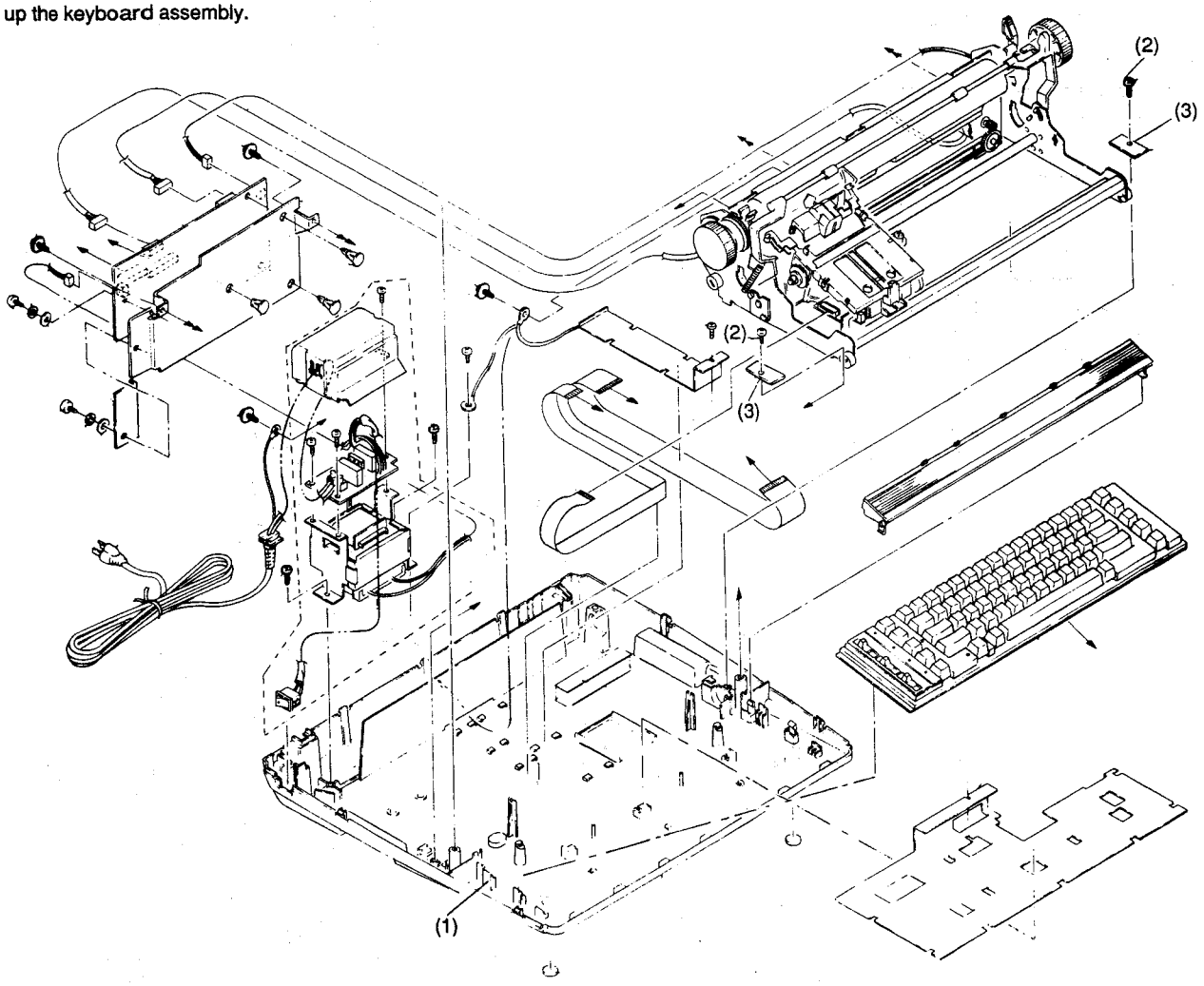


Fig. 1-3

3. Removal of the Printer Main Frame Unit (Fig. 1-3)

(1) Disconnect the connectors (CN-2, CN-3, CN-5, CN-6, CN-7, CN-8).

(2) Release the lock of CN-3 and CN-5 of the carrier, key and remove the flat cable.

(3) Remove two screws (2) and remove mechanism holding plates (3) from both sides.

(4) Lift the front side of the main frame, remove the rubber footings on the rear side, and lift up the mechanism unit.

NOTE) Since the main PWB connectors (CN-3, CN-5) connector lock mechanism, the flat cable has to be removed after releasing the lock as shown in Fig. 1-3A. To fasten the flat cable to the connector, it has to be inserted from the arrow direction A.

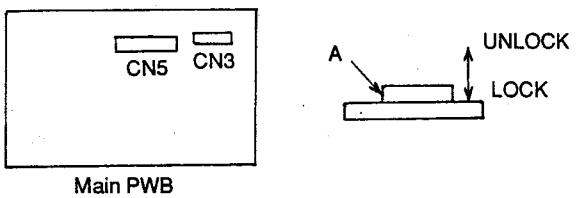


Fig. 1-3A

4. Carrier Base

4-1 Ribbon Lift Mechanism (Fig. 1-4)

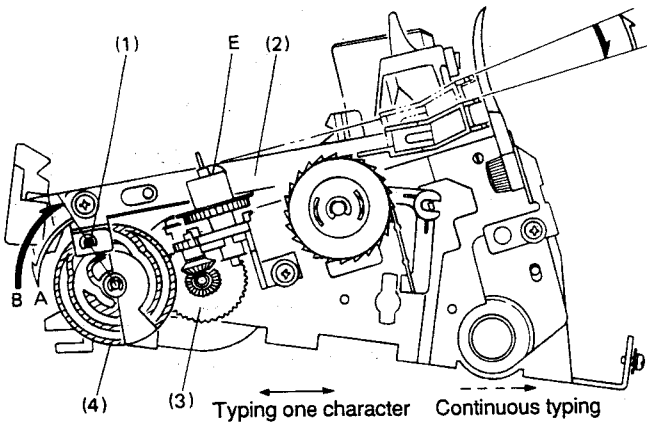
The ribbon lift mechanism is operated by a stepping motor and cam. A signel from the main circuit board causes the stepping motor to rotate, and lift cam (4) turns in the direction of arrow A via gear (3) with the reduction ratio of 1:1.

(Refer to 4-3 "Ribbon Feed Mechanism" for rotation angle.)

This causes ribbon cartridge holder (2), which is connected to a groove in the lift cam by cam follower pin (1), to turn around shaft (E), and the ribbon cassette is raised to the proper position.

The cam rotates in the direction of arrow B to return to the home position after printing. The rotation angle is determined automatically.

[Relative positions of cam and cam follower pin]



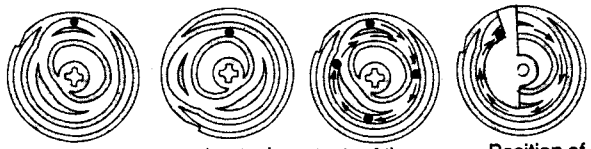
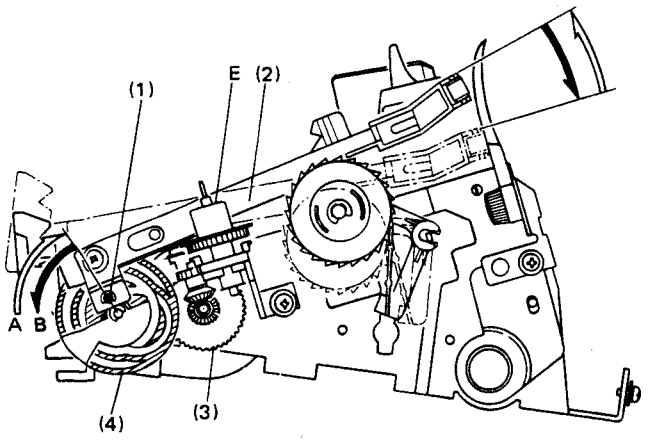

Home Position
During typing
Path of the cam follower pin during typing
Position of Cam Support plate during Continuour typing

Fig. 1-4

4.2 Correction Tape Lift Mechanism (Fig. 1-5)

The correction tape lift is operated by the ribbon lift stepping motor and cam. A signal from the main circuit board causes the stepping motor to rotate, and lift cam (4) turns 135° via gear (3) in the direction of arrow A. This causes ribbon cartridge holder (2), which is connected to a groove in the lift cam by cam follower pin (1) to revolve around shaft (E), and the correction tape attached to it is raised up to the proper positions.

[Relative positions of cam and cam follower pin]



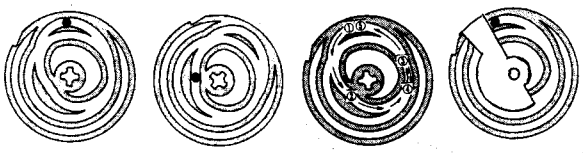

Home position
During correction
Path of cam follower Pin during correction
Position of cam support Plate during correction

Fig. 1-5

[Movement at correction]

Home position ① → Point of correction ② → Stop ③ → Turn for reverse (Take up the printing ribbon) ④ → Home position ⑤ (Same point as (1))

4-3 Ribbon Feed Mechanism (Fig. 1-6)

The ribbon feed is operated by a stepping motor.

The ribbon feed amount is divided into 2 stages, each reduced by gears with the reduction ratio 1:3.8.

The motor rotation angles at these two stages are, respectively, 90° (12 steps) and 120° (16 steps), and the ribbon feed amount is automatically controlled to one of these levels according to size of the characters.

Because this stepping motor drives lift cam (1) which operates the ribbon/correction tape lift at the same time, when ribbon lift is returned to its home position after typing, or when the correction tape is raised, the motor rotation rotates in the reverse direction during ribbon take-up.

For this, the one-way clutch mechanism (2) (3) (4) is provided to prevent reverse rotation of the gearwheel.

NOTE: In order to eliminate backlash of the gear, 20/24 pulses (150°/180°) are given for first feed from the home position, having two more extra pulses than the normal pulses of 12/16 (90°/120°).

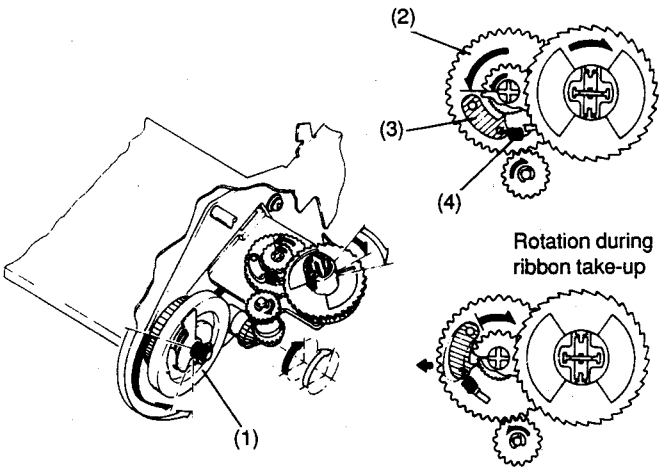
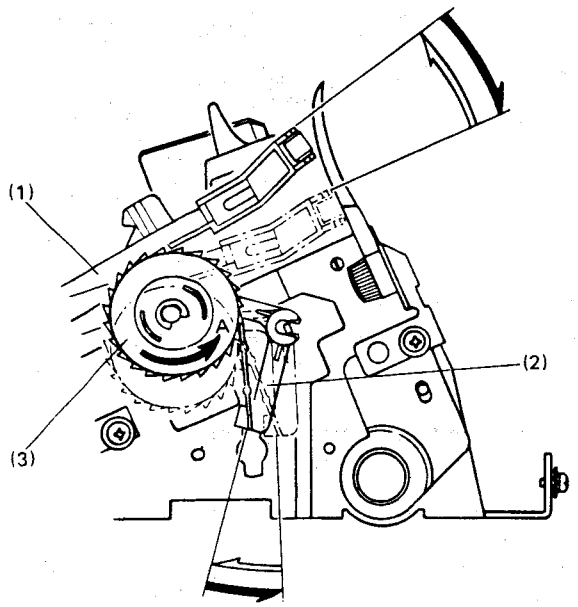


Fig. 1-6

4-4 Correction Tape Feed Mechanism (Fig. 1-7, 1-8)

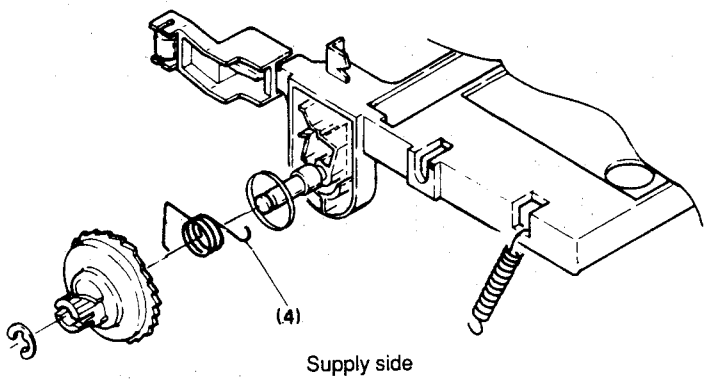
The correction tape feed mechanism changes the relative position of correction tape reel base (3), which is attached to ribbon cartridge holder (1), and reel base drive lever (2), which is guided by a fulcrum shaft on the carrier base, from the one indicated by the dotted line to that indicated by the solid line in Fig. 1-7. During return to home position, the teeth of the correction tape reel base are driven . onetooth position in the direction of arrow A, and the correction tape is wound up.

In addition, to prevent slack in the correction tape during the operation, the correction tape is kept tight by the Spring (4) connected to the reel base on the supply side.



Take-up side

Fig. 1-7



Supply side

Fig. 1-8

4-5 Ribbon Life Home Position Detection

Following power-ON

(1) The left cam rotates in the direction of the arrow (A).

(2) The cam follower pin moves along the cam groove to reach the end point, at which the motor comes out of synchronization; and

(3) The motor stops for a while at an energized state, and then the cam rotates in the direction of the arrow (B), then in the direction of the arrow (A) to drive the cam follower pin to the home position via the route.
(Refer Fig 1-5)

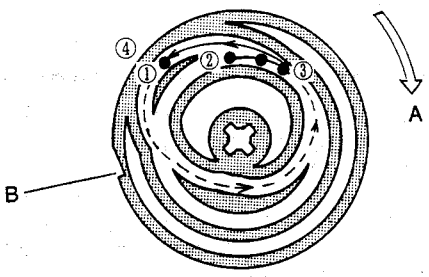


Fig. 1-8-2

Movement of the camfollower pin (Frefer Fig. 1-8-2)

① → ② (Motor comes out of synchronization, and set a appearance)
→ ③ (Take up the printing ribbon) → ④ Home position

As following with power-ON (Refer Fig. 1-8-3)

(1) The carriage base move to left, and stop at point of carriage home position detect.

(2) The cam rotates in the direction of the arrow (A), cam stopper (1) fit with (B) point of cam, at which motor cames out of synchronization, and set an appearance.

(3) After the carriage base move to start position of print, back to home position.

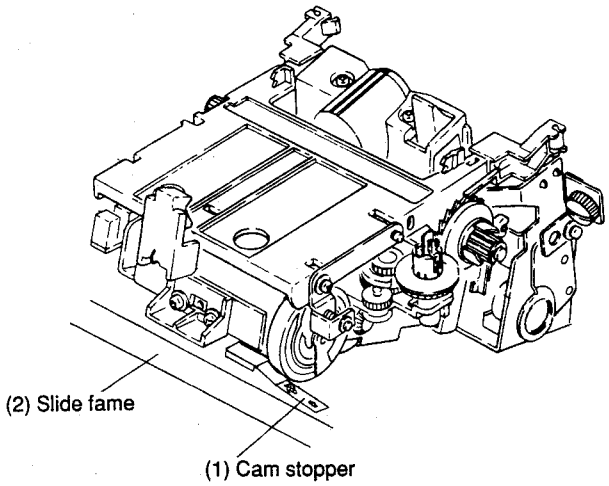


Fig. 1-8-3

4-6 Removal of the Carrier (Fig. 1-9)

(1) Remove the platen.

(2) Remove the screw (1), and get off the belt in the direction of the arrow A.

(3) Remove the card holder (2) after loosening the screw (3).

(4) Remove the flat cable from the carrier PWB connector (CN-3).

(5) Remove two screws (4) and shaft plate L (5), then remove the slide shaft (6) in the arrow direction A.

(6) Remove the carrier through under the main frame.

* Be carefully to not make damage with belt.

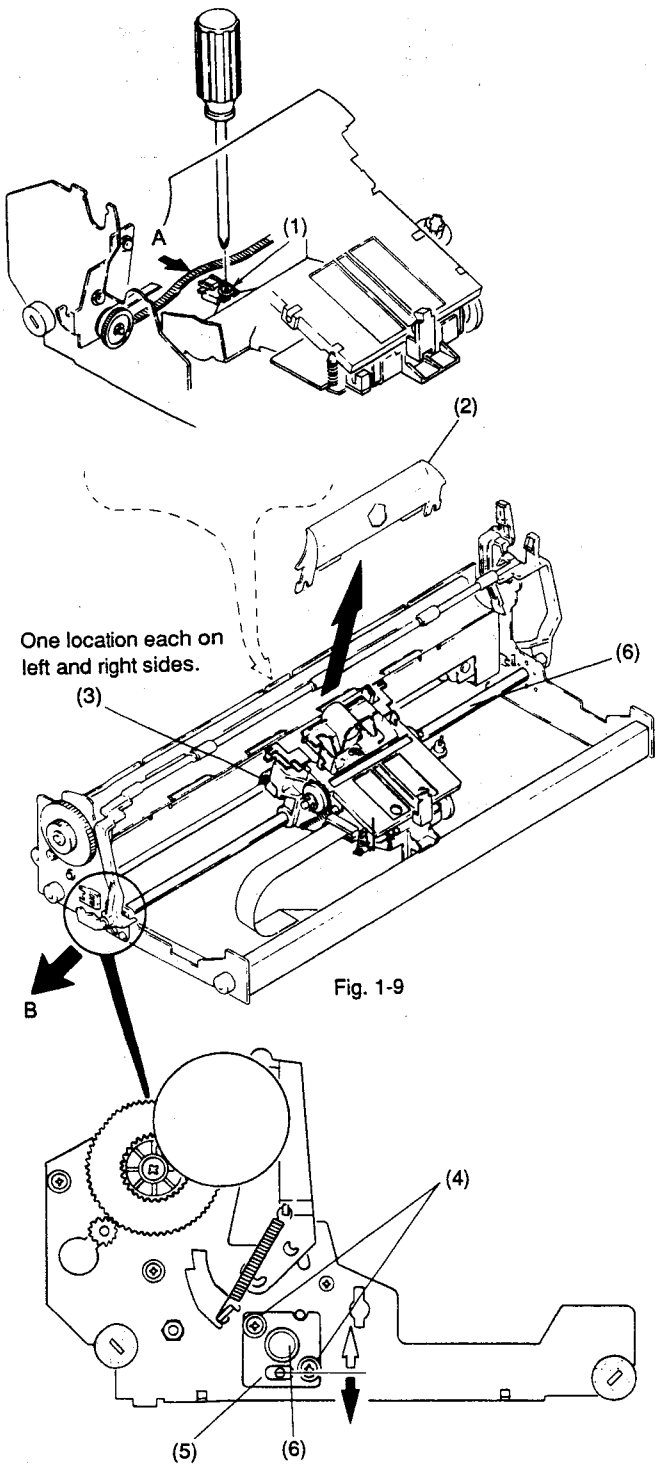


Fig. 1-9

Fig. 1-9B

4-7 Removal of the Ribbon Cartridge Holder (Figures 1-10, 1-11)

(1) Turn lift cam (3) by hand in the direction of arrow A, moving the ribbon cartridge holder (2) to the correction position. (Position cam follower pin (1) as shown in Fig. 1-10.)

(2) Remove ribbon cartridge holder spring (4).

(3) Remove E-ring (5).

(4) Move the ribbon cartridge holder in the arrow direction B to disengage from the righthand stud, move it in the arrow direction C to disengage from the lefthand stud, then take it up to remove.

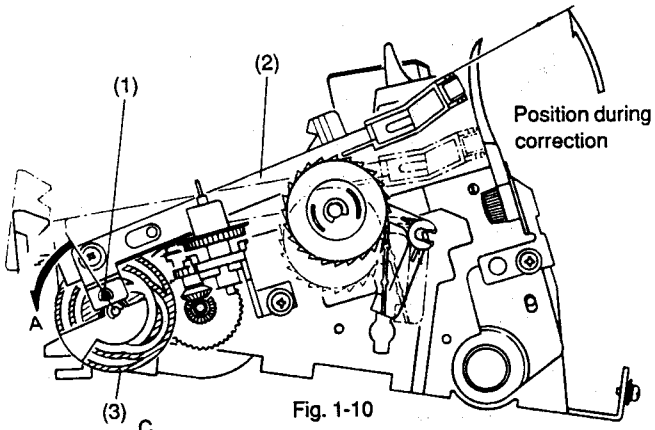


Fig. 1-10

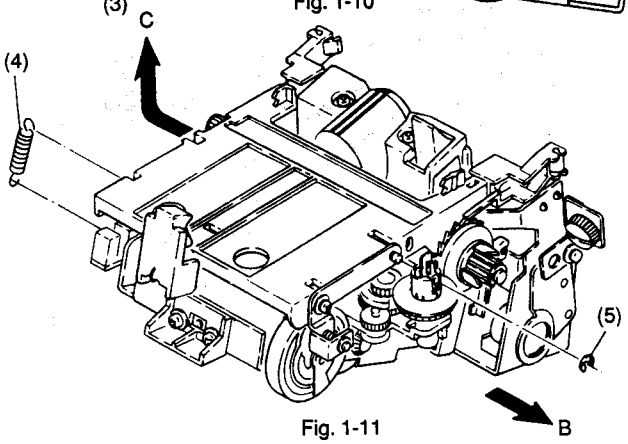


Fig. 1-11

4-8 Removal of the Ribbon Feed Unit

(1) Remove the ribbon cartridge holder.

(2) Disconnect the ribbon motor connector CN-18 from CR-PWB.

(3) Unscrew two screws (1) to remove the gear holder unit.

(4) Loosen the two setscrews (3) on the motor gear (2).

(5) Unscrew the two screws (4) to remove the Ribbon motor.

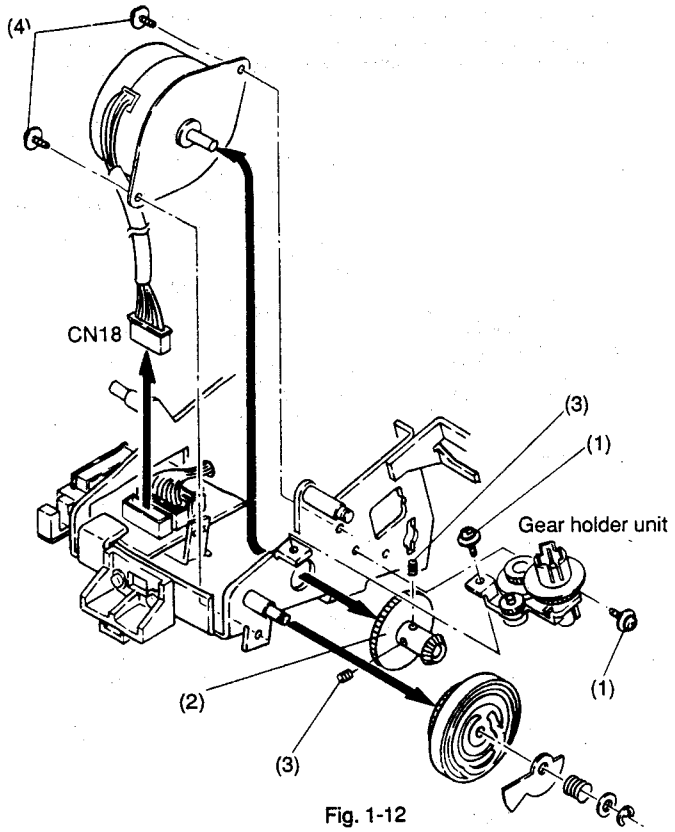


Fig. 1-12

4-9 Disassembly of the Gear Holder Unit (Fig. 1-13)

(1) Remove ribbon take-up shaft stopper (9), then lift out the ribbon take-up shaft (3).

(2) While opening the ribbon take-up shaft lock pawls outwards (in the direction of arrow A), pull out the ribbon take-up driver (1) upward and out.
Caution: Do not lose the take up driver spring.

(3) Take out ratchet gear (2), the ratchet catch (5), and ribbon idler gear B (6). Be careful not to damage or deform the ratchet spring (4).

(4) Remove E-ring (7), then remove ribbon idler gear A (8) from the top and the bevel gear (10) from below.

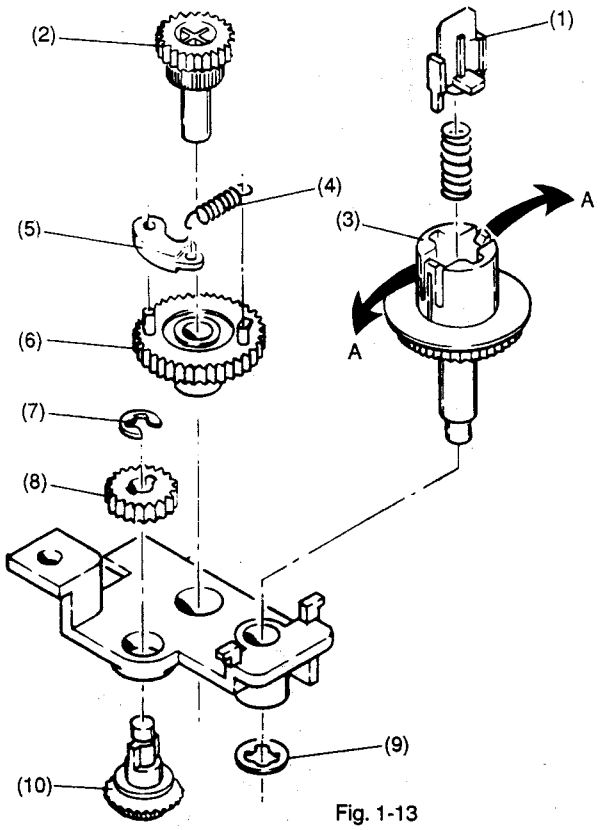


Fig. 1-13

4-10 Removal of the Print Wheel Motor

(1) Remove the ribbon cartridge holder.

(2) Disconnect hammer connector (CN-19) and wheel motor connector (CN-17) from CR-PWB.

(3) Disengage the springs (1) and (2).

(4) Unscrew the two screws (3), remove the paper guide mount (4), and remove AXIS L (5) and R (6).

(5) Remove the unit.

(6) Disengage the E-ring (7) to remove the wheel flange unit.

(7) Remove the wheel gear from the wheel flange by pressing the gear in the direction of the arrow (A) while pinching the claw on it. Remove the two wheel flange springs (8).

(8) Unscrew the two screws (9) to remove the wheel motor.

(9) Disengage the E-ring (10) to remove the zero-sense lever (11).

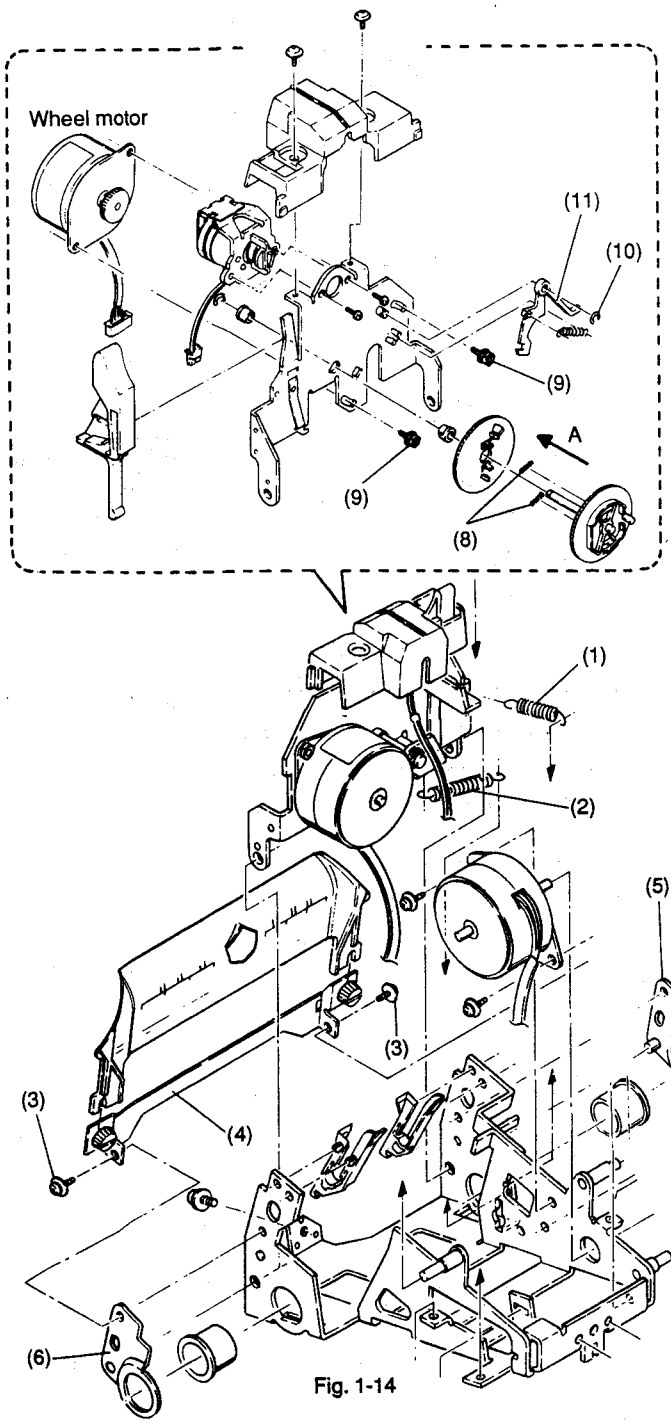


Fig. 1-14

4-11 Print Wheel Home Positioning Mechanism

Following power-ON

(1) The carriage moves to the left margin, which is electrically detected. Then wheel-zero actuator (B) moves the zero-sense lever (11) to the lock position; (Refer Fig. 1-14, Fig. 1-17)

(2) The wheel flange is rotated by the wheel motor through the gear, and the lock pin on the flange is fixed by the zero-sense lever;

(3) The motor comes out of synchronization, stops at an energized state, rotates in the reverse direction by one step completing the wheel home positioning; and

(4) The carriage moves right to the left margin and the zero-sense lever returns to its original position by means of the spring.

4-12 Removal of the Hammer (Fig. 1-15)

(1) Remove the ribbon cartridge holder.
(Refer to 4-7, "Removal of the Ribbon Cartridge Holder.")

(2) Pull wheel release lever (3) toward you, then tilt down wheel motor mounting plate (2) and remove two cap screws (1).

(3) Move wheel motor mounting plate (2) back to the operating position.

(4) Remove the hammer cover (5) with the screw (4).

(5) Disconnect hammer connector (CN-19) from the carrier circuit board.

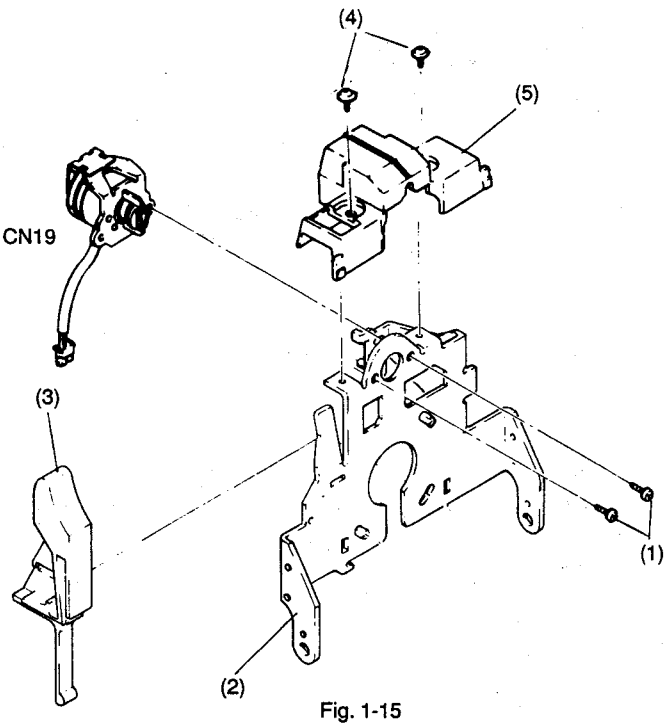


Fig. 1-15

5. Carrier Motor Unit

A signal from the main circuit board causses the carrier motor (2) to rotate, which turns drive pulley (1) via a gear fixed to the motor shaft. The timing belt fit between drive pulley and idler pulley. Carriage base combine with belt and move to left or right by rotate of motor via the belt. The motor runs by 2 phase excitation. One step rotation of the motor causes the carriage to travel 1/120 inches.

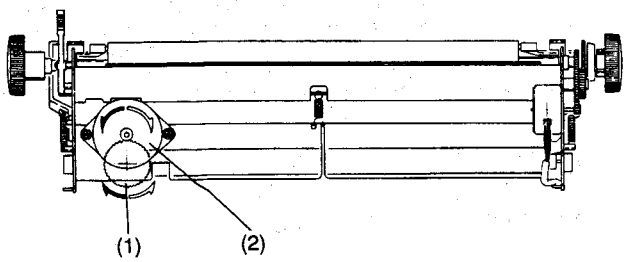


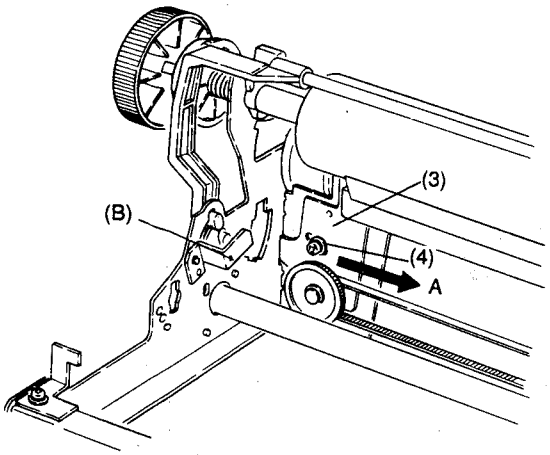
Fig. 1-16

5-1 Removal of the carrier Motor unit.

(1) Get off the belt from carriage base.

(2) Remove two screws (2) and remove carrier motor (1) from main frame.

(3) Get off the belt after loosening the screw (4) and move the idler pulley frame in the direction of the arrow A.



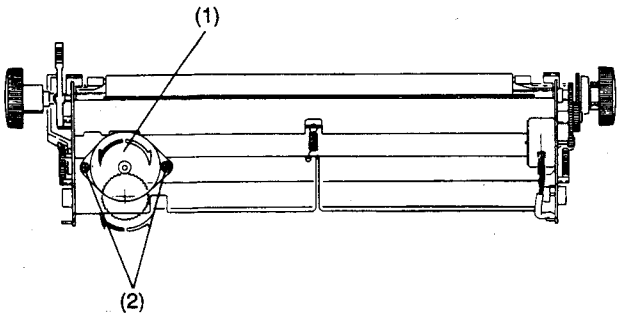


Fig. 1-17

6. Paper Feed Mechanism (Fig. 1-22A, B)

The paper feed mechanism employs stepping motor which turns the platen via motor gear (2), idler gear (1) and platen gear when a signal is received from the main circuit board.

The relationship between the basic feed amount, the gear ratios, and the number of steps is shown in Table 1.

Also , a 1/24 inch detent (paper feed advance intervals) is set by applying a specified voltage to the motor when the machine is in standby mode.

The platen gear is connected by a spring to knob clutch (3) Fig. 1-22B which is fastened to the platen shaft. The gear meshes with the knob clutch and platen gear and turns with the platen shaft as one piece, transferring the rotation of the motor to the platen. By pushing on the knob L, the platen gear is disengaged from the knob clutch. The paper can then be fed freely by turning knob L, for variable line spacing.

Basic Feed Amount	1/6 inch
Number of basic feed steps	16
Number of motor gear teeth	15
Number of idler gear teeth	50/100
Number of platen gear teeth	75

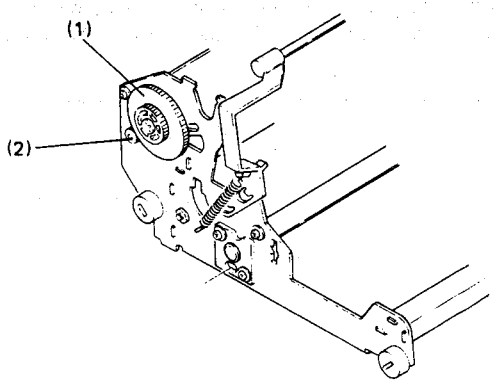


Fig. 1-22A

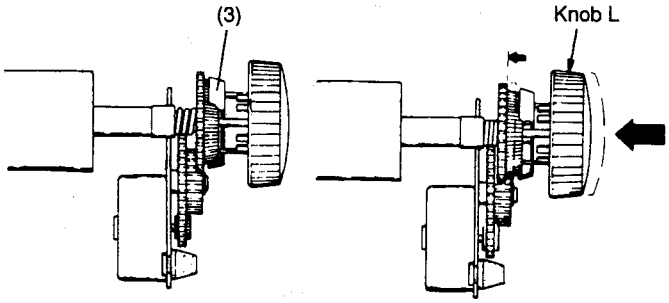


Fig. 1-22B

6-1 Removal of the Paper Feed Mechanism (Fig. 1-23)

(1) Disconnect the paper feed motor connector CN-6.

(2) Loosen two screws (4) and remove paper feed motor (1).

(3) Remove screw (2) and take out idler gear (3).

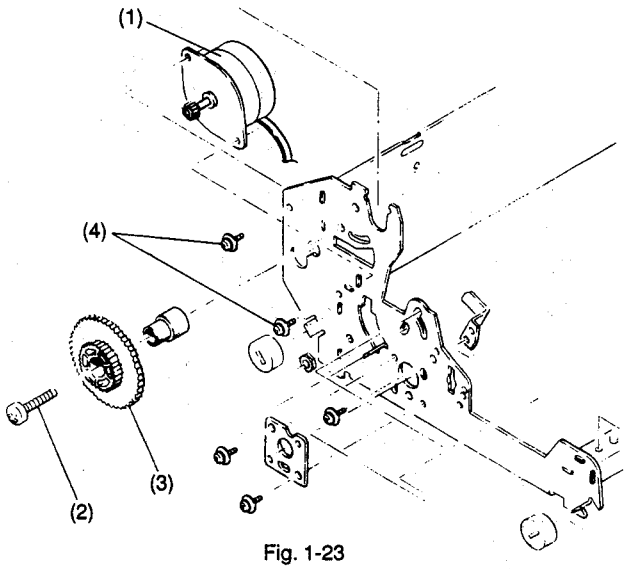


Fig. 1-23

7. Paper Release Mechanism (Fig. 1-24)

When the release lever (1) is moved in the direction indicated by arrow A, holder release plate (2) turns around fulcrum (B) in the direction indicated by arrow C.
Then, the holder release plate push down the nail (4) of roller holder (3) in the direction indicated by arrow B, so that the feed roller is separated from the platen.

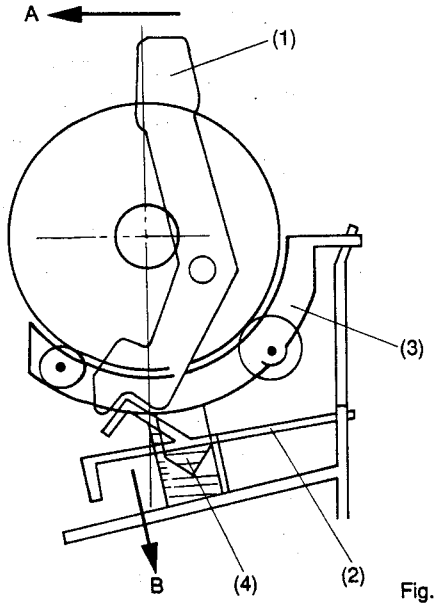


Fig. 1-24

7-1 Removal of the paper release mechanism.

(1) Remove the platen.

(2) Remove the roller holder unit and holder support spring 4 pcs (1).

(3) Disengage the E-ring (2) and remove the release lever (3).

(4) Remove the holder release plate (4) and holder release spring (5).

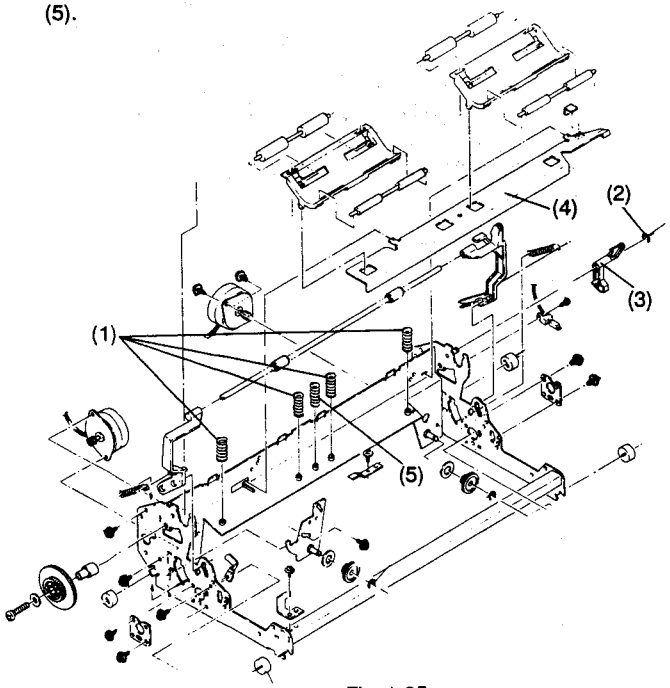


Fig. 1-25

8. Keyboard Assembly Cautions

(1) First, remove flat-cable inserted into the rear connector of the keybaord. Remove 31 screws, and detach circuit board. Care must be exterted not to over-tighten screw after repair, as it is likely to damage screw thread.

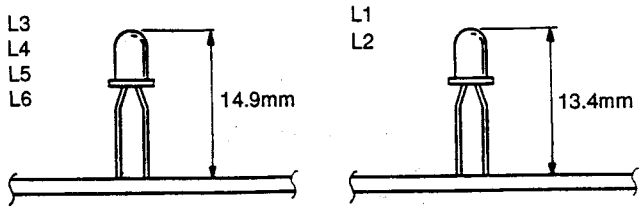
(2) Special attention must be paid in the handling of the small ball and spring used in the slide switch located to the left of the keyboard. Careless removal of the switch may cause the ball to spring out, resulting in the loss of the parts. To assemble, the specified contact grease shall be applied to the slide switch contact patterns on the keybaord PWB.

(3) Make sure the rubber contact is completely force-inserted into the keystem prior to exchanging the keyswitches on the keyboard. Never touch the key contacts of the keyboard PWB (gold plated) directly. Stains on key contacts shall be cleaned with alcohol. Stains and alien substance affixed to the contact section of rubber contacts are also to be removed with alcohol.

(4) In case the keyboard PWB is to be exchanged, reassemble only after stains on the keyboard PWB are wiped off with alcohol.

(5) In case the keytops are to be exchanged, be sure to remove keytops vertically, so as not to deteriorate their retention force.

(6) The height of LED installed shall be as indicated in diagram below:



(LOCK and CODE Key)

2. MECHANICAL ADJUSTMENT

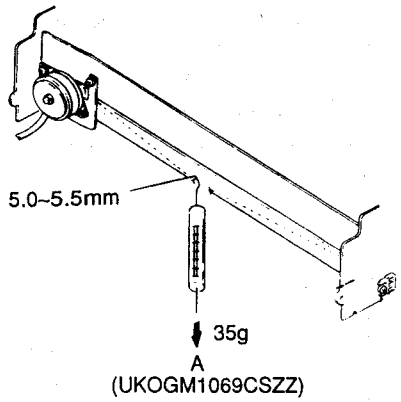
1. Adjustment of the belt tension

The tension of the belt must be correct to obtain proper correction accuracy and correct thickness of characters during bold typing.

(1) Get off the belt from carriage base.

(2) Check the tension of belt at the middle position of belt in the direction indicated by arrow A with tention gage (weight is 35g). Bent of belt must be with in 5~5.5mm.

(3) If not 5~5.5mm on item (2), Adjust the tention with to move the pulley after loosening the screw (2) of idler pulley frame.
If less than 5mm (too much tension), turn to B.
If greater than 5.5mm (too little tension), turn to C.



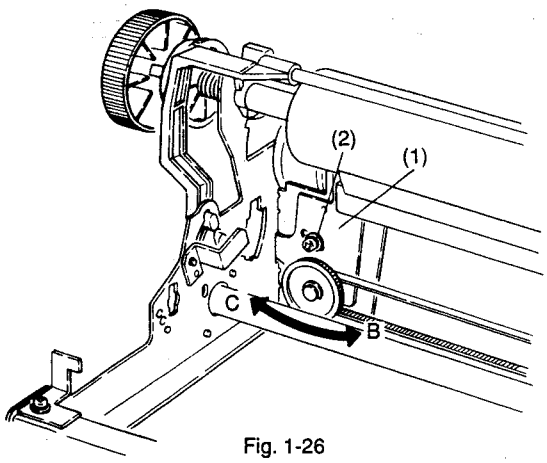


Fig. 1-26

2. Adjustment of the Carrier Motor Attachment Position (Fig. 1-27, 1-28, 1-29)

Proper meshing of the carrier motor gear and the drive pulley is obtained by adjusting the position of the carrier motor. This adjustment, as with the wire rope tension adjustment, must be done correctly to obtain proper correction accuracy and bold character thickness.

(1) Remove the carrier motor connector (CN-7) from the main circuit board.

(2) Slightly loosen the two carrier motor mounting screws (1).

(3) Position the motor so that the drive pulley gear (3) and the carrier motor gear (2) just mesh (minimum backlash), and tighten the two motor mounting screws (1).

(4) Confirm that there is no play in the gears as they mesh. If there is play, perform the adjustment in item (3) again.

(5) Move the carrier base to the edge of the frame, and attach a tension gauge as shown in Fig. 1-29.

(6) Pull the carrier with the tension gauge and read the tensin. Confirm that the tension is less than 800g.

Note: Ignore the tension when the carrier begins to move. Pull the tension gauge slowly (approx. 5cm/sec.)

(7) If the tension is not within the prescribed range, perform the adjustment in item (3) again.

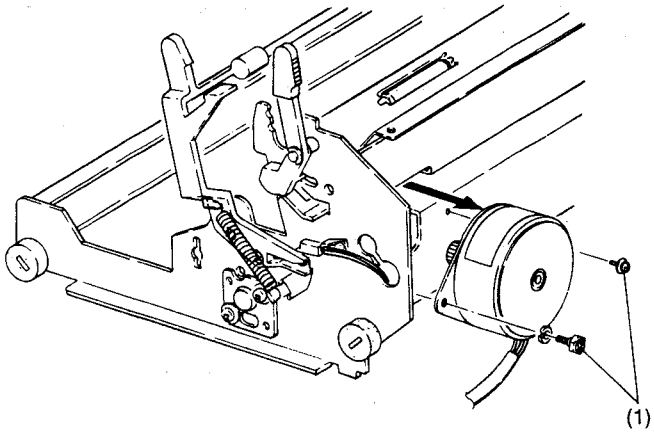


Fig. 1-27

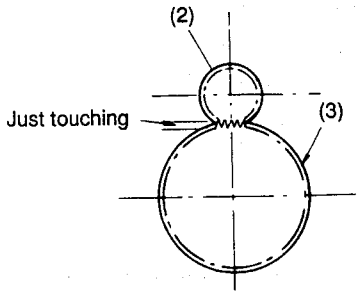


Fig. 1-28

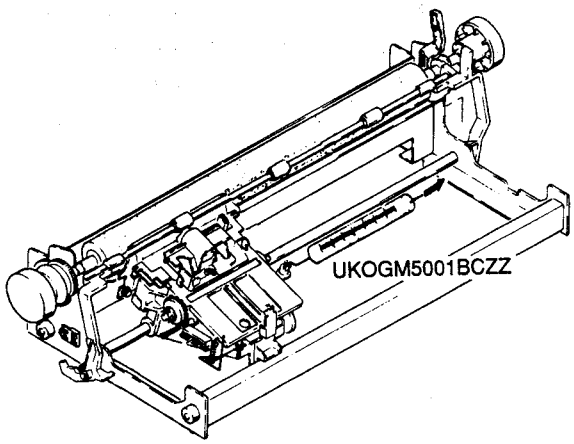


Fig. 1-29

3. Adjustment of the Distance between the Platen and the Hammer

This adujustment is performed by moving the SLIDE up or down as shown in Fig. 1-30. Correct adjustment is required to obtain proper character density and correction accuracy.

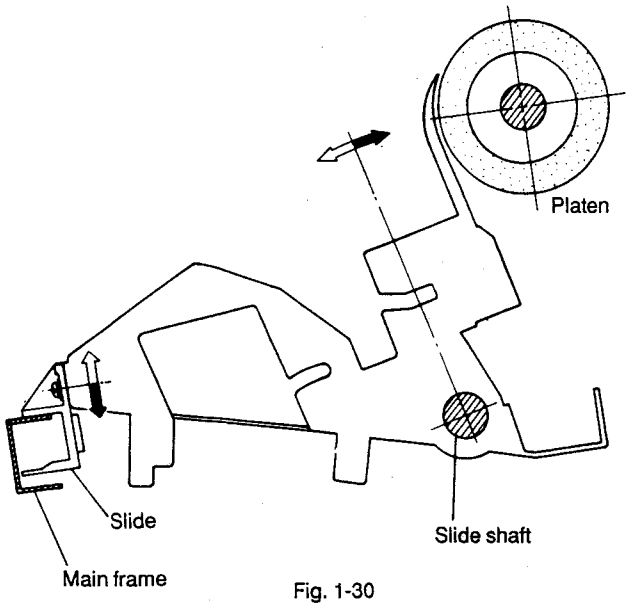


Fig. 1-30

(1) Remove the two hammer cover screws (1), and lift the hammer cover up to remove it.

(2) Loosen the two paper pressure plate mounting screws (2), and remove the paper pressure plate by lifting it upward. It is preferable to remove the card holder prior to removal of the platen.

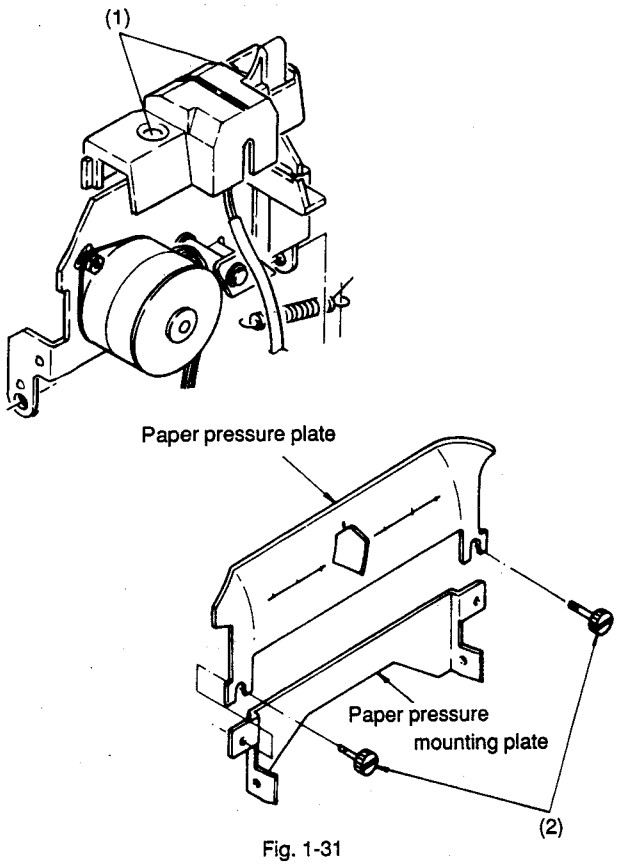


Fig. 1-31

(3) Slightly loosen the two slide mounting screws (3) on the back of the carier base, Fig. 1-32.

(4) Adjust the distance between the hammer and the platen by inserting the eccentric driver in the adjustment slot and turning it.

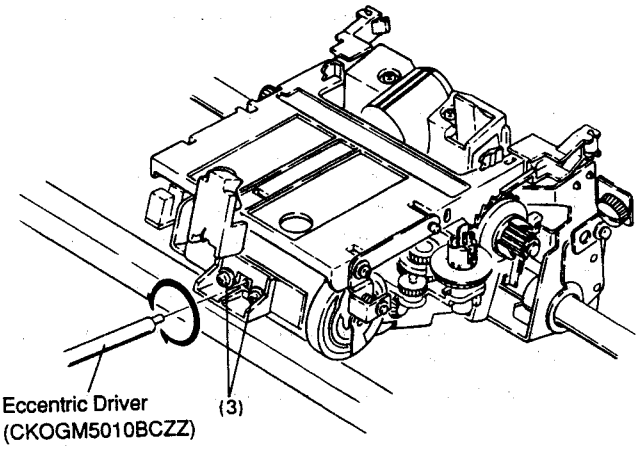


Fig. 1-32

(5) To check the hammer to platen distance, insert a 14mm thickness gauge (parallel gauge) between the print wheel motor mounting plate left side, and the platen as shown in Fig. 1-33, and confirm that there is no gap. (Perform this check at both the left and right ends of the carrier travel as shown in Fig. 1-34.)

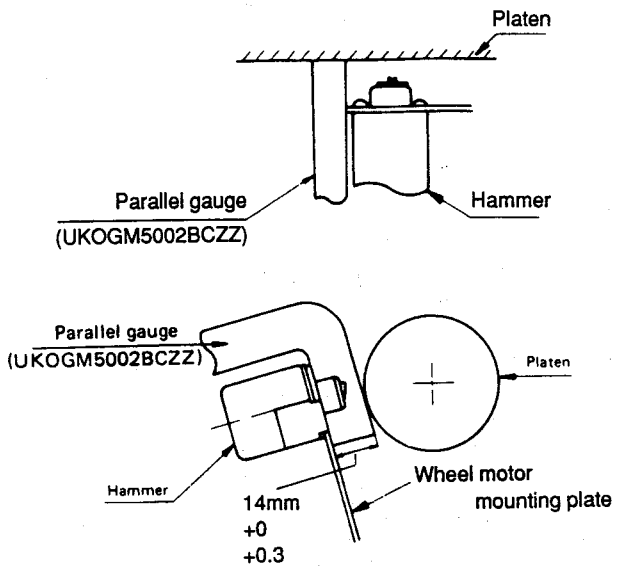


Fig. 1-33

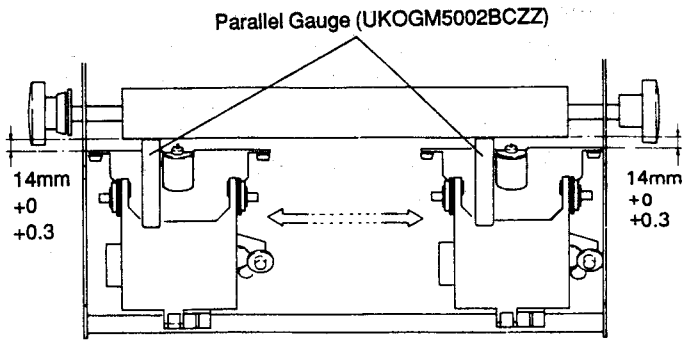


Fig. 1-34

(6) Tighten the screws (3) when the adjustment is complete.

(7) Attach the hammer cover and paper pressure plate.

(8) After the platen to hammer distance adjustment, check with the feeler gauge (UKOGM0075CSZZ) that the clearance A of Fig. 1-34A (between the paper holding plate and the wheel case) is 0.4 to 0.5mm.

NOTES:

1) Check the clearance on both sides of the wheel case.

2) Adjust the paper holdering plate using the adjusting nut. It should have a clearance that one sheet of paper may be inserted without much resistance.

3) Make sure that the ribbon is not in contact with the paper holding plate and the wheel case. If it is in contact, make adjustment according to the procedure mentioned next. (Fig. 1-34B)

   1. Loosen the paper holding plate screw (1) and move the location of the plate.
   2. Loosen the paper holding plate screw (2) and move the location of the plate.

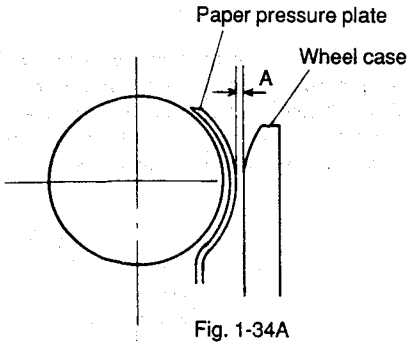


Fig. 1-34A

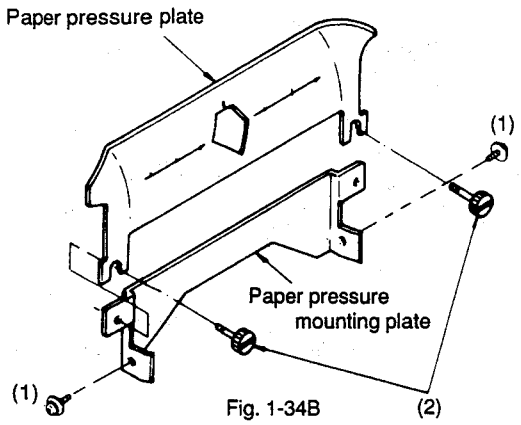


Fig. 1-34B

4. Parallel Adjustment of the Slide Shaft

This adjustment is performed by moving the shaft plates on the left and right of the frame to move the slide shaft up or down as shown in Fig. 1-35. This adjustment must be correct to obtain even density and even correction from the top to the bottom of characters.

(1) Slightly loosen the screws (1) holding the shaft plates L and R on the left and right sides of the frame.

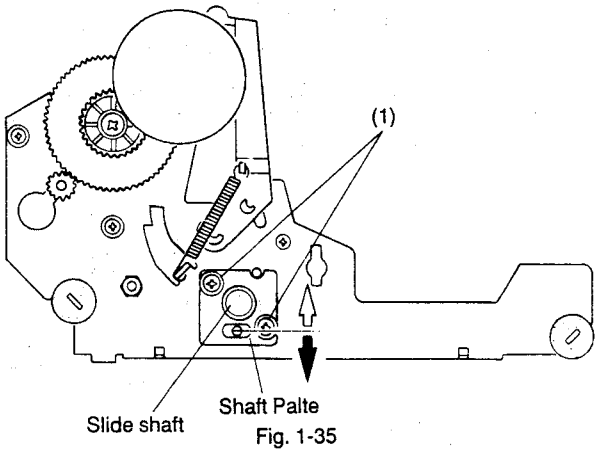


Fig. 1-35

(2) Position the parallel gauge (thickness gauge) as shown in Fig. 1-36.

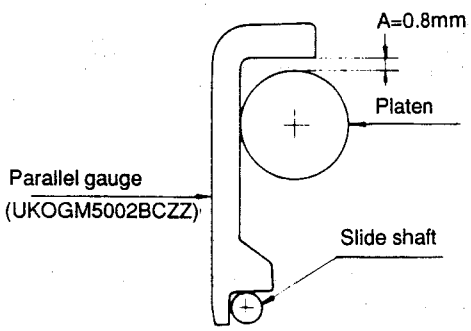


Fig. 1-36

(3) Insert the eccentric driver in the adjustment slot in the shaft plate and turn it to move the slide shaft up or down to adjust the parallelism (Fig. 1-37). Perform this adjustment at both end of the platen as shown in Fig. 1-38.

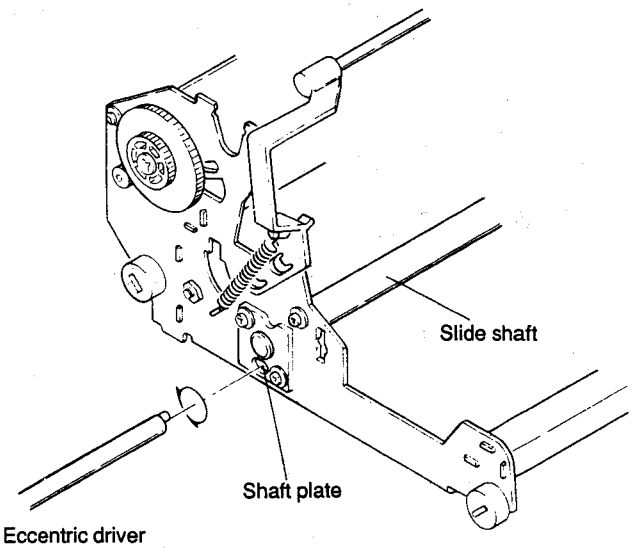


Fig. 1-37

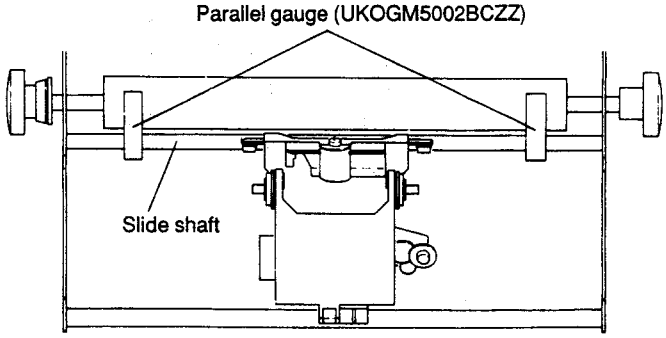


Fig. 1-38

(4) Tighten the screws (1) holding the shaft plates L and R.

(5) Check the distance between the hammer and the platen, and if it is not within the prescribed range, readjust. (See 3. Adjustment of the Distance between the Platen and the Hammer.)

(6) Using a carbon paper, type the character "H" across the full typing line with the impression control at "O" and check the quality of the characters.

Typing samples:

Table-2

Typing condition	Slide shaft position
ON FEET	Properly adjusted.
OFF FEET a (Lower part of characters is too light.)	Slide shaft is too low.
OFF FEET b (Upper part of characters is too light.)	Slide shaft is too high.

5. Adjustment of the Home Position of the Print Wheel Motor

(1) Connect the CR flat cable (CN-3) to CR-PWB and engage the wheel motor connector (CN-17).

(2) Fix the wheel motor position tentatively so that the screw is at the center of the mounting hole adjusting range.
See the illustration below.

(3) Place some light blocking object over the photosensor slit on CR-PWB and power on the machine.

(4) After the motor has stopped, slowly put on the wheel flange unit along the wheel shaft so that the part (A) of the unit becomes upright and aligns with the hammer.

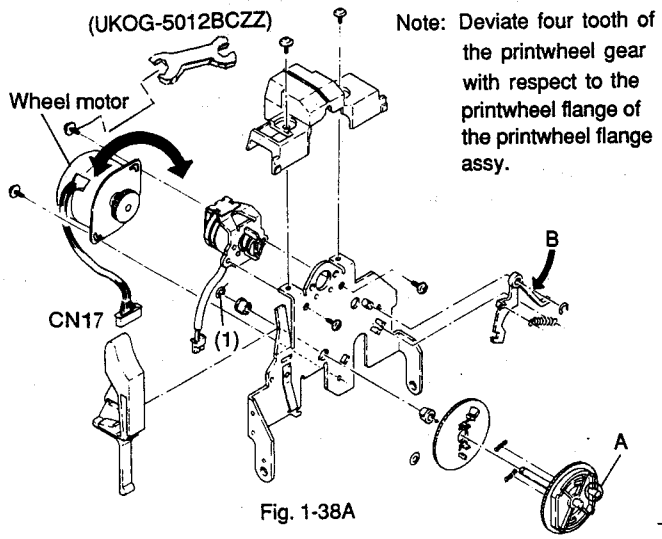
(5) Turn off the power, install the wheel, press the zero-sense lever in the direction of the arrow (B), and turn on the power.

(6) The wheel, which is locked by the zero-sense lever, rotates, vibrates, and stops.

(7) Adjust and fix the wheel motor position so that the wheel home position (under line V locator) aligns with the hammer V groove within 0.05mm. (Fig. 1-38B)

(8) Engage the E-ring (1) to the wheel flange shaft. If Step (7) above cannot be made at any point in the motor position adjusting range, repeat the procedure from Step (3) with the meshing between the wheel flange and the motor pinion gear changed by one tooth.

(9) Tighten the screw to secure the wheel motor position.



Note: Deviate four tooth of the printwheel gear with respect to the printwheel flange of the printwheel flange assy.

Fig. 1-38A

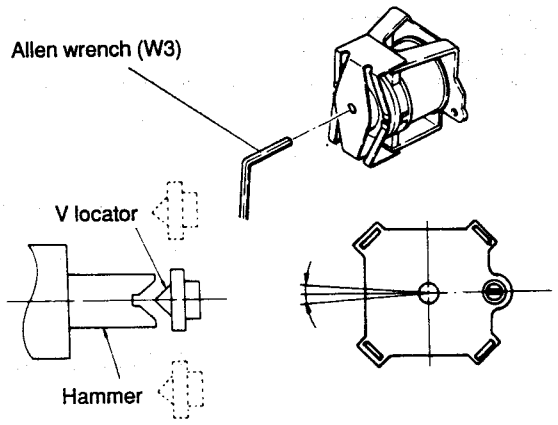


Fig. 1-38B

6. Adjustment of the Hammer Inclination

Here, the hammer is adjusted so that it is vertical with respect to each character spoke as it strikes it. This adjustment must be correct to prevent slanting characters and to obtain sufficient correction accuracy.

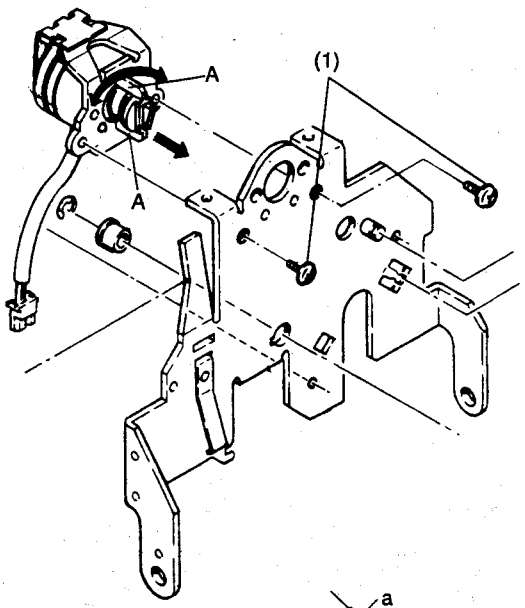
(1) Set the print wheel and switch the power on.

(2) Loosen the hammer mounting screws (1).

(3) Insert the M3 Allen wrench (2mm dia. or less) into the hole at the back of the hammer and push out the hammer, stopping just before the tip of the hammer comes in contact with the V locator on the "under-score" spoke on the print wheel.

(4) Compare the left and right clearances (a and b) between the V locator on the print wheel and the V groove on the hammer, and turn part A of the hammer with a pair of long-nosed pliers so that the two clearances are equal.

Note: Do not apply too much pressur to part A of the hammer, as this may deform it.



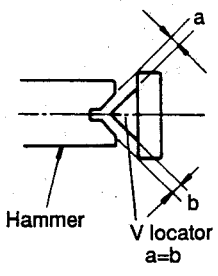


Fig. 1-43

(5) Tighten the hammer mounting screws (1).

(6) Type three lines of five vertical tab lines each, and check for slanting. Confirm that hte vertical tab lines continue in five vertical lines.

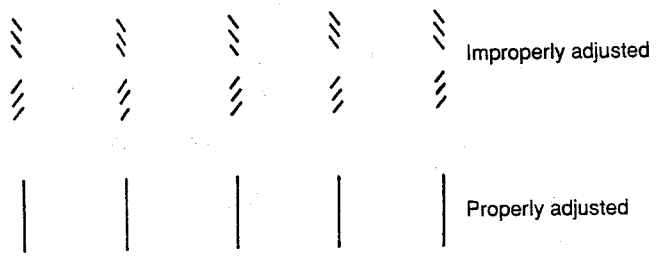


Fig. 1-44

7. Ribbon Lift Cam Home Position Adjustment

Adjustment 1:

(1) Do the initialize with Power ON.

(2) Disengage the E-ring (1) to remove the cam boss (2) cam support plate (4), and spring (3).

* Be carefully to not turn the cam (motor)

(3) Fit the gear of cam in the correct position.
Cam follower pin must be in the home position of cam.

(4) Install the cam boss, cam support plate and spring.

(5) Check the position of cam followe rpin at home position of cam after initialize.

Adjustment 2:

If a fine adjujstment is desired in addition to Adjustment 1 above, perform the following:

Prior to the adjustment, confirm that the setscrew on the motor gear comes to the position as indicated in Fig. 1-44 when the cam is manually rotated sot that the cam follower pin moves to the home position. If the setscrew is out of the acceptable range, remove the gear meshing and make adjustment in accordance with Adjustment 1.

(1) Loosen the setscrews (6) on the motor gear (7) so that the gear is freed from the motor.

(2) Power-ON the machine for initializing.

(3) Manually rotate the motor gear in the direction of the arow (A) to find the position at which the cam follower pin is at the lift cam home position and the motor gear engages with the level gear (7) correctly.
(Refer 4-2)

(4) Tighten the two setscrews.

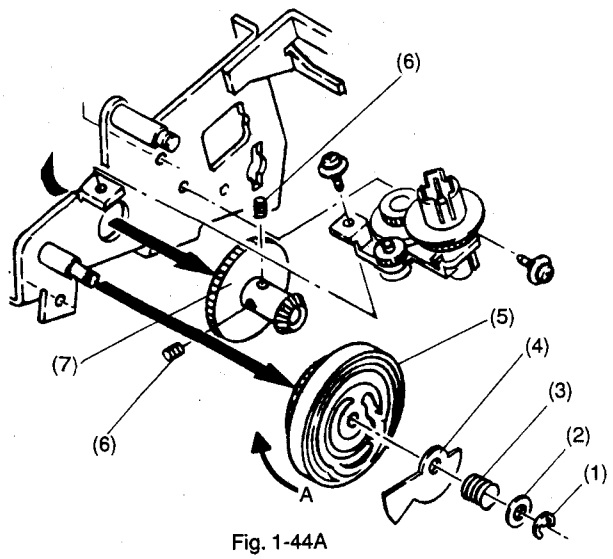


Fig. 1-44A

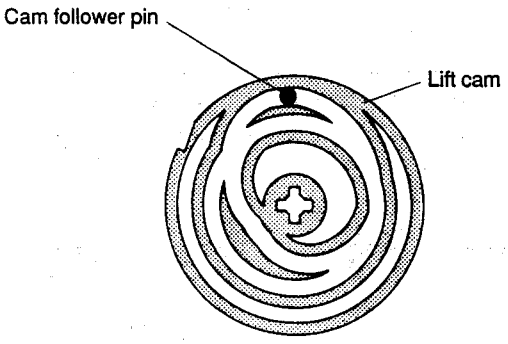
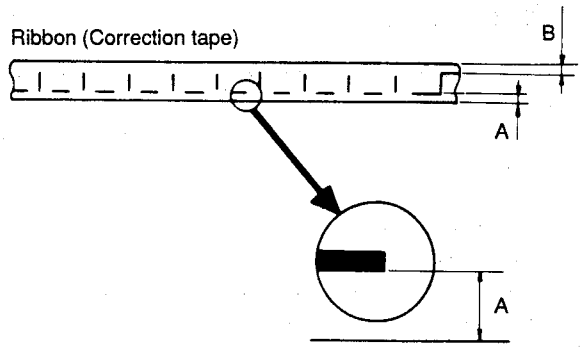


Fig. 1-44B Home Position

8. Adjustment of the Ribbon and Correction Tape Lift

Here, the lift of the ribbon (or correction tape) is adjusted so that the type surfaces on the print wheel strike the ribbon (or correction tape) properly during typing (or correction). This adjustment must be correct to entire characters (top and bottom), high characters (' " "), and low characters (, . –) are typed correctly.



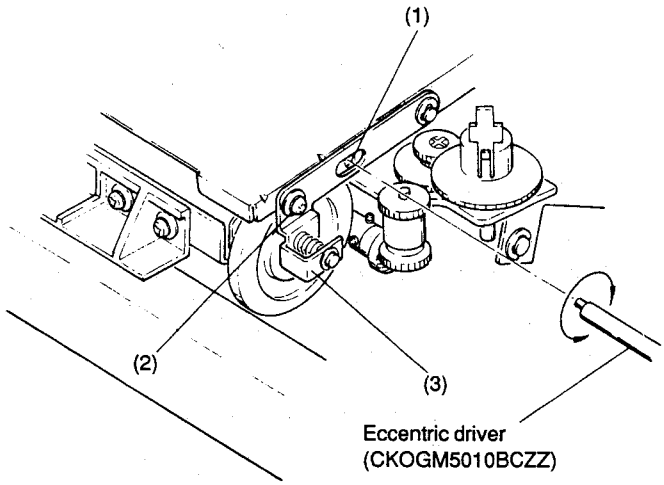


Fig. 1-45

(1) Alternately type vertical lines (tab lines) and under-scores.

(2) Observe the printing impressions on the ribbon.

(3) If clearance A and B are less than 1mm (A≧1.0mm, B≧1.0mm), perform the adjustment below.

(4) Loosen the screw (2) holding the cam follower slide (3).

(5) Insert the eccentric driver in the adjustment slot (1) and turn it so that clearance A and B are within the prescribed range. Temporarily tighten the screw (2).

(6) Check the correction tape in the same manner (correct the characters just typed). The clearance should be A≧0.7mm and B≧0.7mm.

(7) Tighten the screw (2).

9. Carriage Home Position Adjustment

(1) Alloow the carriage to find its home position by turning the power switch on or the cover switch on.

(2) Make sure that the distance from the inside left of the main frame to the outside of the carriage base left side is 30.5±0.4mm.

(3) If out of the limits, slightly loosen the carriage shutter (1) holding screw (2) to adjust.
If a is larger than 30.9mm, move the carriage shutter to left.
If A is not larger than 30.1mm, move the carriage shutter to right.

(4) Make sure again by turning the power swtich or the cover switch on that the distance (2) is satisfied.

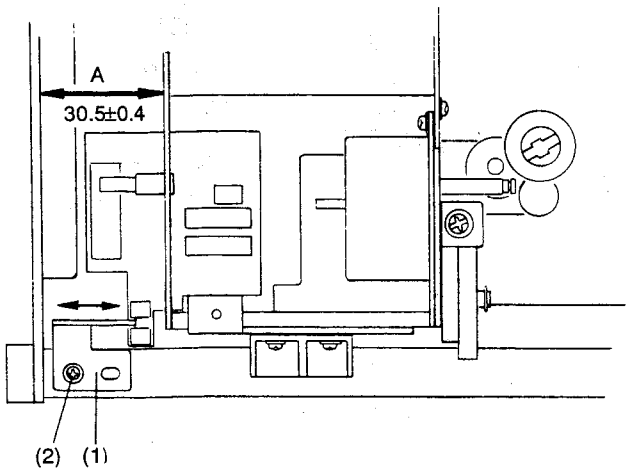


Fig. 1-46

3. MAINTENANCE

Periodic lubrication is necessary to maintain the this model in proper operating condition. In addition to periodic maintenance, locations that require lubrication when parts are replaced or repairs are made are also noted here. Please refer to the related sections and perform lubrication as required.

1. Periodic Maintenance

When performing periodic maintenance, remove the upper cabinet. Also remove other parts or disassemble as instructed for individual items.

(1) Maintenance periods

Every 5 million characters (approximately 63 correctable carbon ribbons) or once a year, whichever comes first.

(2) Items required for periodic maintenance

1. Service tools
2. Grease (Floil G-311S) OCHFLOILG311S
   Ethyl alcohol
   Rags
3. Special tools for use on electronic typewriters

- UKOGM5002BCZZ
  Gauges (combination thickness and parallel gauge)
- UKOGM1069CSZZ
  Tension gauge (500g)
- CKOGM5010BCZZ
  Eccentric driver
- UKOG-5012BCZZ
  Wheel wrench (for the print wheel motor)

(3) Maintenance items

Table-3

Item	Reference No.	Location	Application amount*
1-1 Greasing Floil G-311S	B-1	Drive pulley gear	OO
	B-2	Paper feed motor gear	O
	B-3	Moving shaft of ribbon cartridge holder	O
	B-4	Contact surface of cam follower pin	O
	B-5	Lift cam	O
	B-6	Ribbon takeup shaft and gear	O
	B-7	Shafts of feed rollers A and B	O
	B-8	Release lever lock of the holder supporter plate	O
	B-9	Carrier bearing	OO
1-2 Retightening of screws	C-1	Shaft plate set screws	–
	C-2	Slide set screws	–
	C-3	Cam follower slide set screw	–
	C-4	Knob clutch set screws	–
	C-5	Motor gear set screws	–
	C-6	Pulley frame	–
1-3 Cleaning	D-1	Platen	–
	D-2	Paper pressure plate	–
1-4 Inspection items	(1)	Belt tension	–
	(2)	Print wheel motor home position	–
	(3)	Lift cam home position	–
	(4)	Ribbon and correction tape shift	–
	(5)	Operation of all levers	–
	(6)	Typing quality	–

Application amounts

O: Apply lightly and evenly on the entire surface of the part(s).

OO: Apply relatively heavily.

1-1 Greasing (Foil G-311S)

B-1 Drive pulley

- Turn the pulley by moving the carrier, and grease all of the teeth of the pulley.

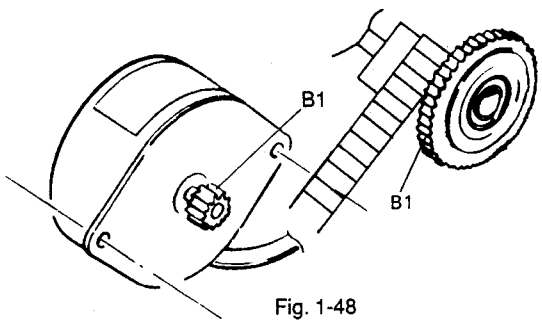


Fig. 1-48

B-2 Paper feed motor pinion gear

- Turn the pinion gear by turning the platen manually, and grease all of the teeth of the pinion gear.

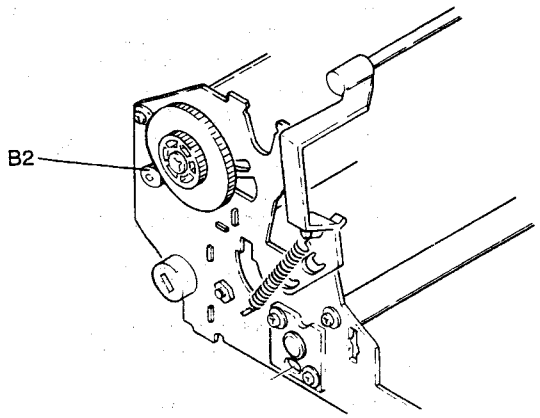
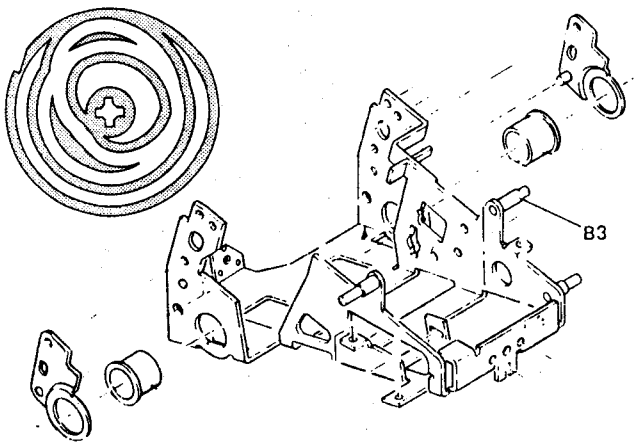


Fig. 1-49

B-3 Pivot shaft of the ribbon cartridge holder

- Grease the entire surface of the Pivot shaft of the ribbon cartridge holder on the carrier base (see Fig. 1-47).



B-4 Contact surface of cam follower pin

- Push the pin against the spring and grease the portion that contacts the cam follower slide.

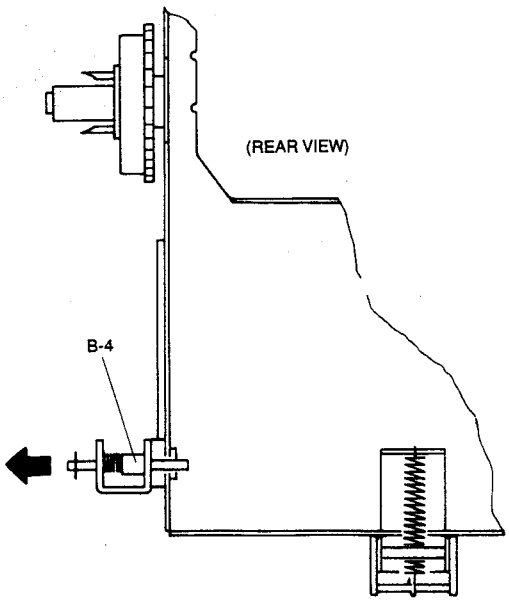


Fig. 1-50

B-5 Lift cam

- Grease the portion of the channel cam that contacts the cam folower pin (see Fig. 1-47).

B-6 Ribbon takeup shaft

- Area where makes contact with the gear holder and where makes contact with the latchet gear.

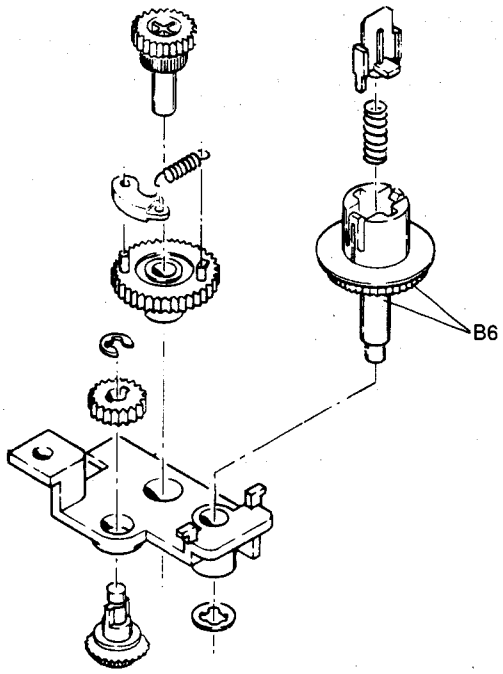


Fig. 1-51

B-7 Shafts of feed rollers A and B

- Grease the entire surface of the ends of the shafts of feed rollers A and B (part that contacts roller holder).

B-8 Release lever lock of the holder supporter plate.

- To be lubed to the area where the holder supporter plate contacts with the release lever.

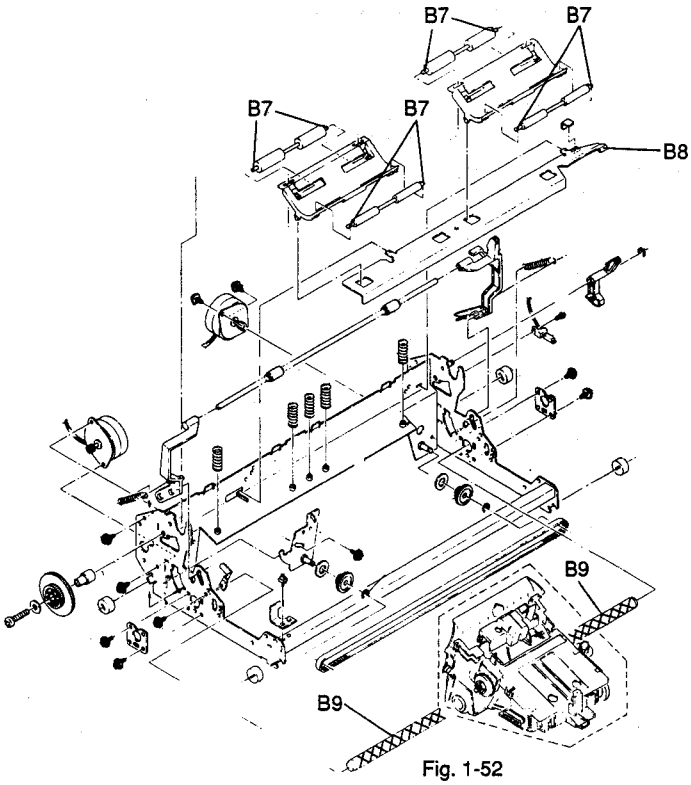


Fig. 1-52

B-9 Apply slight quantity of grease to the slide shaft section.

1-2 Retightening of Screws

The following screws and nuts must be tightened firmly during periodic maintenance.

C-1 Shaft plate set screws (2 each on left and right sides for a total of 4)

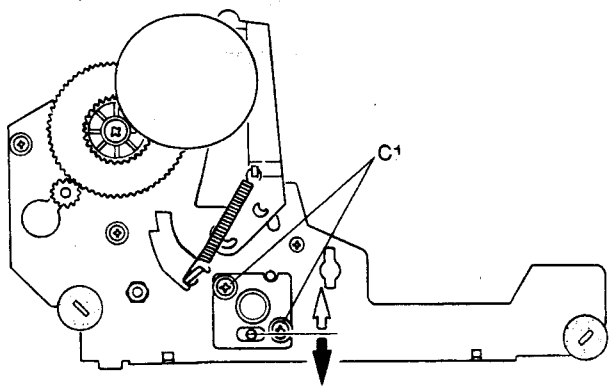


Fig. 1-53

C-2 Slide set screws (2 pcs)

C-3 Cam follower slide set screw

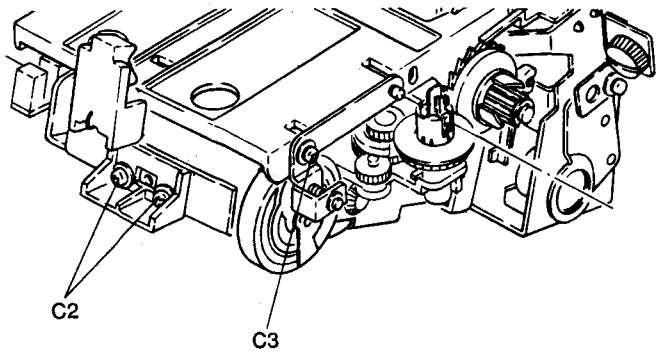


Fig. 1-54

C-4 Knob clutch set screws (2 pcs)

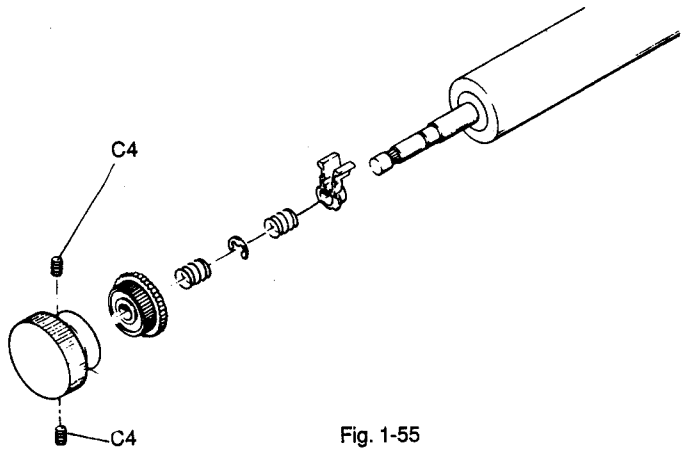


Fig. 1-55

C-5 Motor gear set screws (2 pcs)

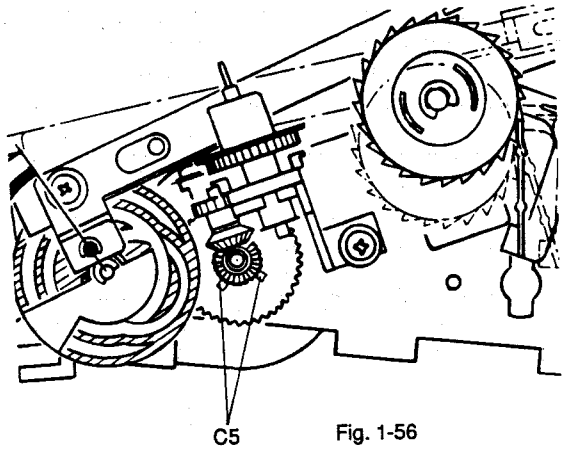
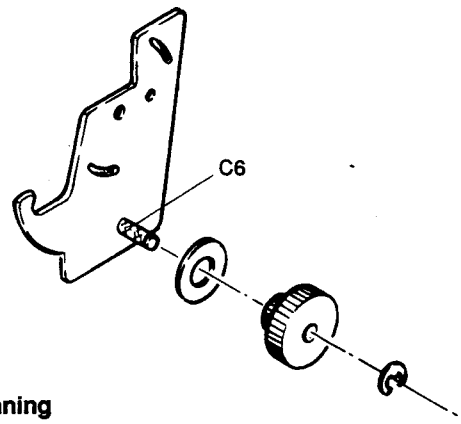


Fig. 1-56

C-6 Spread the grease around the axis of Pulley frame.



1-3 Cleaning

Clean the following with a rag moistened with ethyl alcohol.

D-1 Platen

D-2 Paper pressure plate (Remove to clean.)

* Also wipe the carbon powder from the area around the carrier base and the portion of the lower part of the cabinet where the carrier travels.

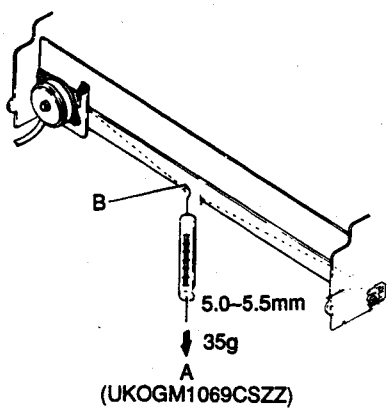
1-4 Inspection Items

Inspect the following items when the above items have been completed, and confirm that the mechanisms are working properly. Refer to the Mechanical Adjustment section in this manual for items that need readjustment, and readjust as required.

(1) Belt tension

Belt tension will greatly affect the accuracy of printing and correction. Careful check that belt tension is properly adjusted.

1. Remove the belt from he carriage base. (See 4-6.)
2. Follow the same procedures as 2-1 "Adjustment of Belt tension".



(2) Print wheel motor home position

This adjustment must be correct to ensure that the hammer strikes the print wheel characters properly, to obtain proper correction and to ensure characters are not slanted.

1. Switch on the power, and confirm that the print wheel home position (under-score) stops at the hammer. If it does not, adjust. (See section 5. Adjustment of the Home Position of the Print Wheel Motor.)
2. Insert an M3 Allen wrench (2mm dia. or less) into the hole at the back of the hammer and push out the hammer to check the alignment of the V locator on the "under-score" spoke of the print wheel with the V groove of the hammer. Readjust if they are not properly aligned. (See section 5. Adjustment of the Home Position of the Print Wheel Motor.)

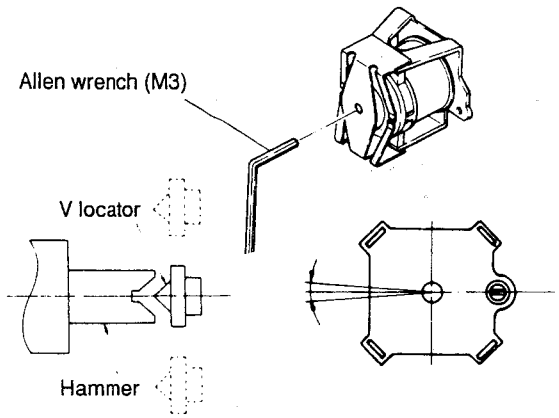


Fig. 1-59

(3) Lift cam home position

This adjustment must be correct so that the ribbon (or correction tape) lifts properly to ensure proper typing (or correction).

1. Switch on the power.
2. Check that the cam follower pin is stopped properly at the home position of the cam.
3. If the it is not at the home position of the cam, adjust the position. (See Section 7.)

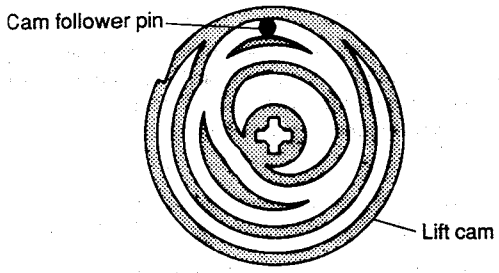


Fig. 1-60 Home Position

(4) Ribbon and correction tape lift

The lift amount must be correct to ensure that the upper and lower parts of characters are printed and erased correctly; confirm that the type surfaces of the print wheel strike the ribbon and correction tape properly.

1. Type vertical lines, and under-score, alternately and observe the printing impressions on the ribbon. Cofirm that results A and B are greater than 1mm (Fig. 1-61).
2. If results A and B are less than 1mm, adjust. (See section 8. Adjustment of the ribbon and Correction Tape Lift.)
3. Erase the vertical lines and under-score typed in item 1, and observe the impressions on the correction tape. Confirm that results A and B are greater than 0.7mm (Fig. 1-61).
4. If results A and B are not greater than 0.7mm, adjust.

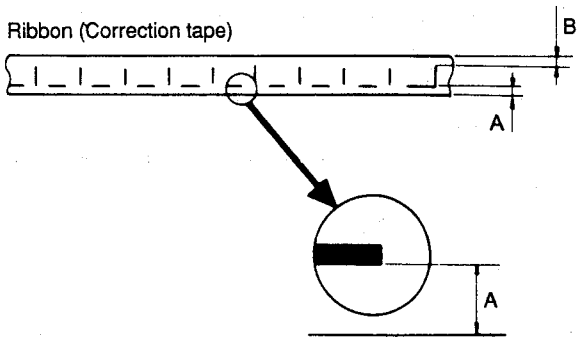


Fig. 1-61

(5) Operation of all levers

Confirm that the operation of all levers are smooth. If any are not smooth, lubricate as required.

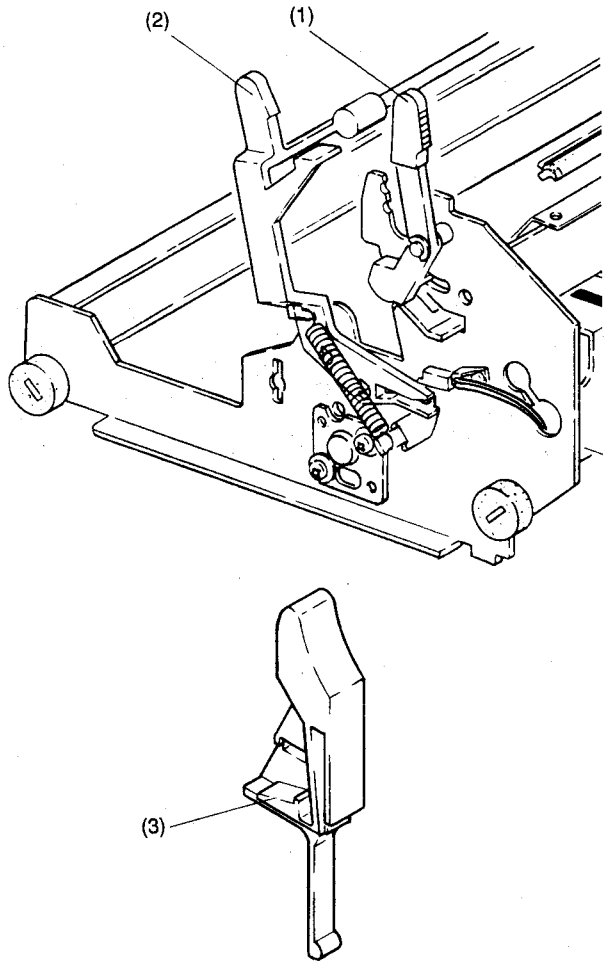


Fig. 1-62

1. Paper release lever (1)
2. Paper bail lever (2)
3. Wheel lever (3)

Note: See section 3-2. Locations that require greasing when parts are replaced.

(6) Typing quality

A. Parallelism of slide shaft

1) Since it is difficult to confirm the quality of typing with a carbon ribbon, use a carbon paper and type "H" across the full typing line with the impression control at "O" and check the quality of the characters.

Typing samples:

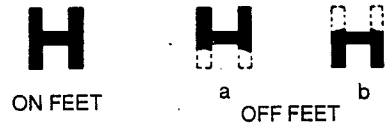


Table-4

Typing condition	slide shaft position
ON FEET	Properly adjusted.
OFF FEET a (Lower part of characters is too light.)	Slide shaft is too low
OFF FEET b (Upper part of characters is too light.)	Slide shaft is too high

2) Adjust in the cases of OFF FEET a or b.

(See section 4. Parallel adjustment the Slide Shaft.)

B. Distance between the platen and the hammer

This distance is determined by the attachment position of the slide with respect to the carrier base. Before checking the distance between the hammer and the platen, confirm that the parallelism of the slide shaft is properly adjusted.

1) Use a carbon paper and type "H" across the full typing line to check the typing quality as in item A-(1).

Table-5

Typing condition	Distance between the hammer and the platen
Typing is too heavy overall. Typing is too light overall.	Distance between the hammer and the platen is too small. Distance between the hammer and the platen is too large.

C. Inclination of the hammer

1) Type several lines of vertical lines at the left and right margins and at the center.

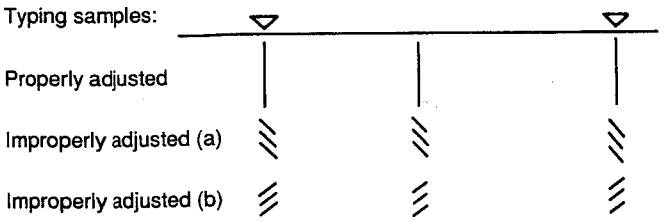


Fig. 1-65

2) Adjust in the case of improperly adjusted (a) or (b). (See section 6. Adjustment of the Hammer Inclination.)

2. Locations that Require Greasing When Parts are Replaced

The locations noted on this page do not necessarily require lubrication during periodic maintenance, but they must be lubricated when repaired or parts are replaced. The condition of the mechanism may also require that they be lubricated.

Locations requiring greasing (Floil G-311S)

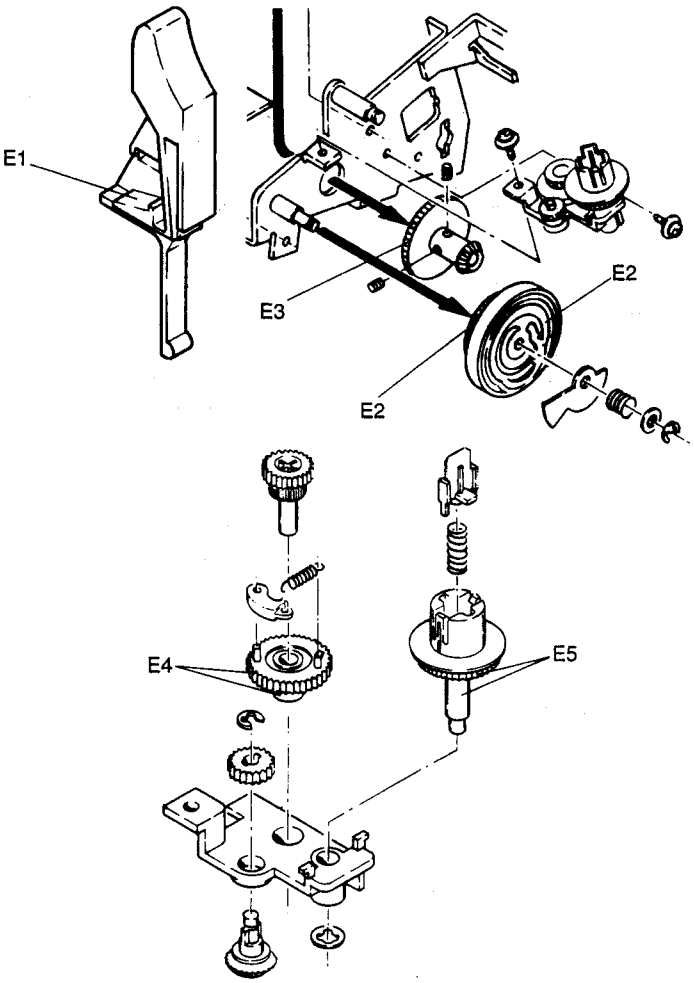
Table-6

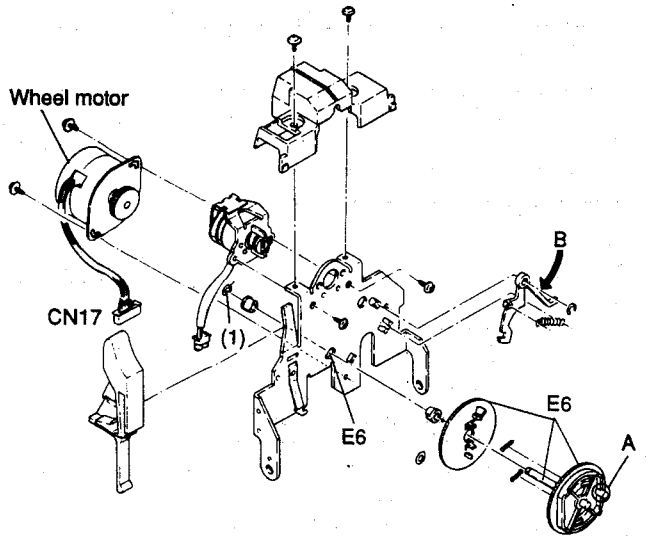
Reference No.	Part name	Application amount*
[1-1 Carrier base]		
E-1	Wheel release lever lock	O
E-2	Shift cam shaft, and groove	O
E-3	Bevel gear shaft and teeth	O
E-4	RB idler gear B shaft and teeth	O
E-5	Ribbon take-up axis shaft, and large and small gears	O
E-6	Wheel flange shaft, bearing, and gear	O
[2-2 Main frame]		
E-8	Release lever axis	O
E-9	Holder support surface contacting with the release lever	O
E-10	Idler gear boss	O
E-11	Roller holder bearing	O
E-12	Surfaces of bail levers R and L contacting with the frame	O

* Application amounts

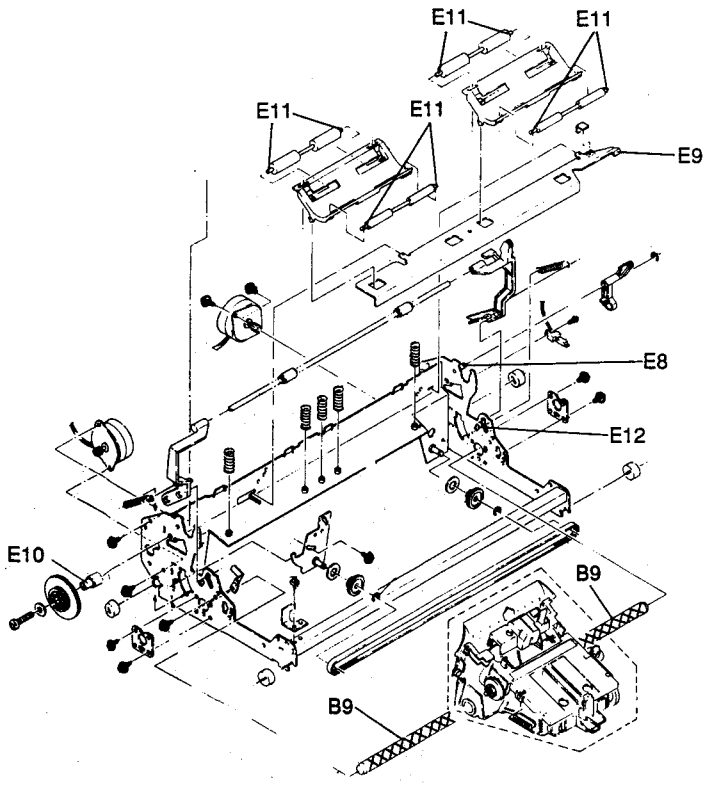
O: Apply light and evenly on the entire surface of the part(s).

2-1. Carrier base





2-2. Main frame



II ELECTRICAL SECTION

1. CIRCUIT DESCRIPTION

1. BLOCK DIAGRAM

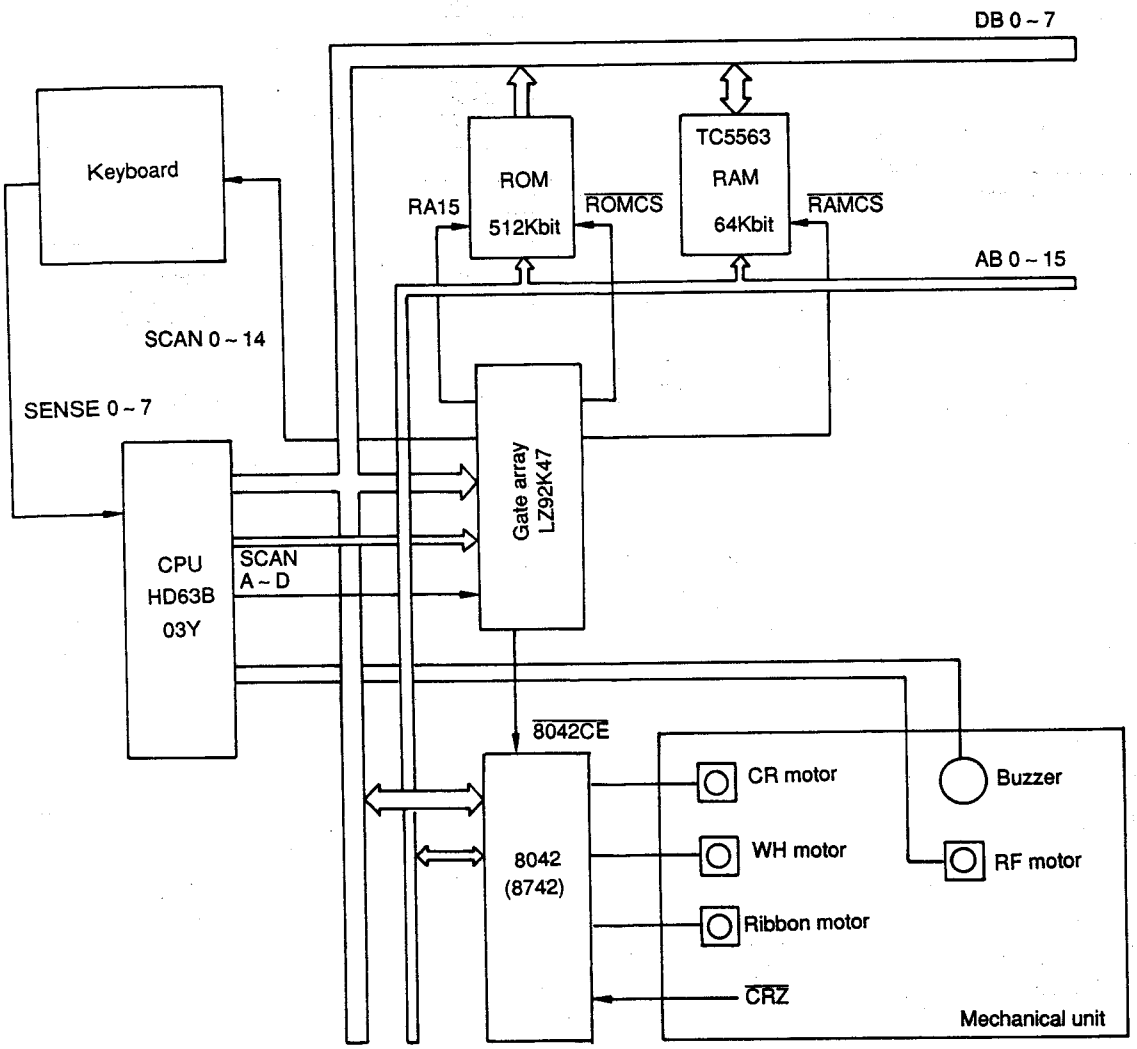


Fig. 2-1

The HD63B03Y CPU used in this model is an 8-bit CMOS single chip microcomputer unit (MPU).

2. MEMORY MAP AND I/O ADDRESS

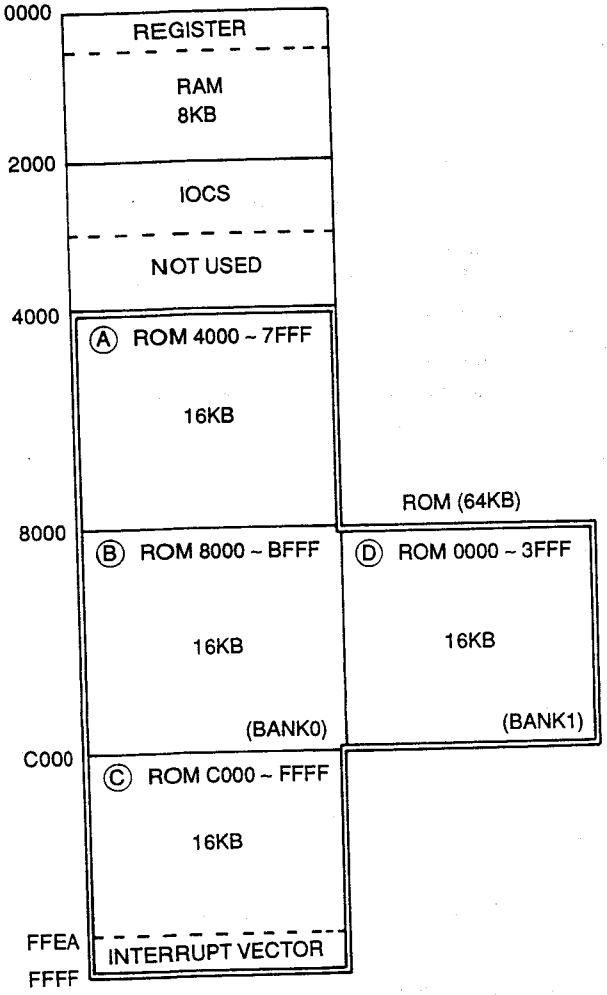


Fig. 2-1-2 Memory map

Fig. 2-2 Memory map

I/O address (HEX)	Device	Meaning	Remarks
2000	Controller 8042 (8742)	8042 (8742) controller data	
01		8042 (8742) controller status	
2400	Not used		
2401			
2402			
2403			
2800			
01			
02			
03			
2C00	ExP1	I/O output port-1 ($\overline{LOCK}$, $\overline{CODE}$)	
3000	ExP2	I/O output port-2 ($\overline{KBIILP}$, $\overline{CAPLP}$)	
3400	ExP3	I/O output port-3 ($\overline{BANK}$, $\overline{MEMLP}$)	
3800	ExP4	I/O output port-4 (PROTEC, IORST0)	

Fig. 2-2

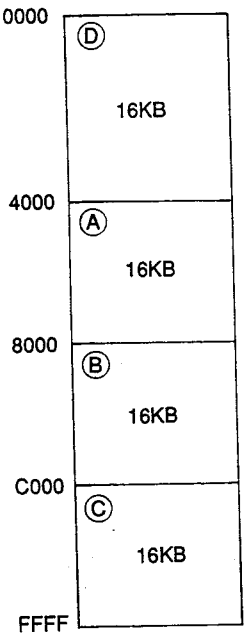


Table 2-2

Device	I/O address (HEX)	DBn	High level	Low level	Remark
EXP1	2C00	DB0	LOCK LED ON	LOCK LED OFF	
		DB1	CODE LED ON	CODE LED OFF	
EXP2	3000	DB0	KBII LED ON	KBII LED OFF	
		DB1	CAPS LED ON	CAPS LED OFF	
EXP3	3400	DB0	BANK select	BANK no-select	BANK select
		DB1	MEM LED ON	MEM LED OFF	
EXP4	3800	DB0	PROTECT: Enable	PROTECT: Disable	
		DB1	$\overline{IORST}$: Enable	$\overline{IORST}$: Disable	

- PROTECT: Enable ⇒ When power is off, output is provided after saving.
  Disable ⇒ Immediately after power is on, it is disabled.
- BANK: Select ⇒ BANK 1 is selected.
  No select ⇒ BANK 0 is selected. This state is obtained when power is on.
- $\overline{IORST}$: Enable ⇒ Controller is reset.
  Disable ⇒ Controller reset is cancelled.

Fig. 2.2 ROM address map (512KBit type)

Logic address 8000H ~ BFFFH is an address space for BANK selection performed by gate array LZ92K47.
When BANK 0 is selected, logic address 8000H ~ BFFFH (Fig. 2-1 (B)) corresponds to ROM address (In case of 512KBit type) 8000H ~ BFFFH (Fig. 2-2 (B)). When BANK 1 is selected, logic address 8000H ~ BFFFH corresponds to ROM address 0000H ~ 3FFFH (Fig. 2-2 (D)). This selection is made by writing 0 (for BANK 0) or 1 (for BANK 1) to bit 0 of the gate array flip flop (logic address 3400H).
When 1MBit ROM is used, use ROM address 10000H ~ 1FFFFH instead of the above ROM address 0000H ~ FFFFH.

3. RESET CIRCUIT

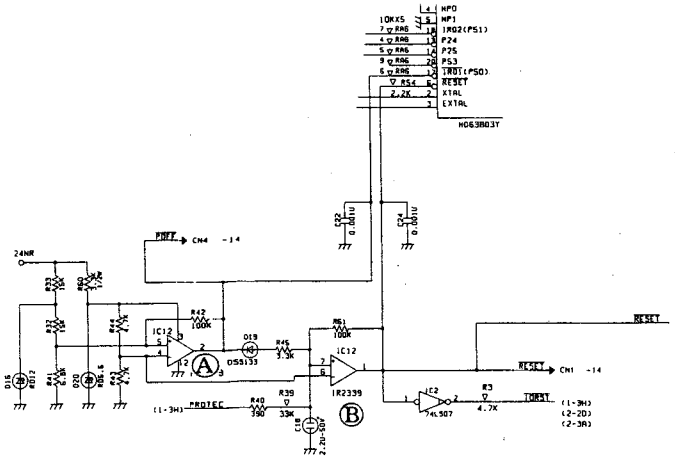


Fig. 3-1 RESET circuit

The $\overline{RES}$ signal is created in the circuit shown above and the timing shown below in association with the $\overline{POFF}$ signal.

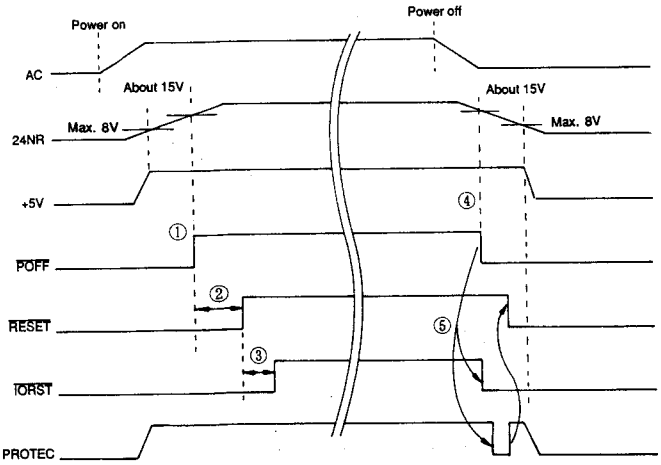


Fig. 3-2 RESET circuit timing chart

3-1 When power is on

(1) When signal 24NR from the power circuit reaches about 15V, comparator (A) output turns from Low to High impedance, driving $\overline{POFF}$ to High.

(2) When $\overline{POFF}$ is driven High, C18 is charged through R39. When voltage across C18 exceeds about 2.8V, $\overline{RESET}$ level kept at Low by comparator (B) is driven High, actuating the CPU.

(NOTE) The CPU drive power line level (+5V) falls to 4.5V when 24NR exceed 8V. Therefore, time delay (2) is generated from that moment until POFF becomes High.

(3) When the CPU is actuated, it first initializes the CPU internal registers. During the initialization, the CPU keeps $\overline{IORST}$ at Low through the gate array. After completion of initialization, the CPU drives $\overline{IORST}$ to High.

(NOTE) $\overline{IORST}$ is formed with wired OR of the IC2 output and the gate array output, and can be made Low by the CPU software processing.

3-2 When power is off

(4) When the power is turned off and 24NR falls below about 15V, comparator (A) drives $\overline{POFF}$ to Low. Since, however, C18 is charged, $\overline{RESET}$ level is not changed.

(5) When $\overline{POFF}$ is driven to Low, the CPU is interrupted. The CPU drives $\overline{IORST}$ to Low through the gate array, performs saving of the internal register, and then drives PROTEC to Low.

(6) When PROTEC is driven to Low, C18 is rapidly discharged to drive $\overline{RESET}$ to Low. Since the operation (5) is completed at the moment, malfunctions of the printer and destruction of RAM data are prevented.

3-3 SRAM data protection

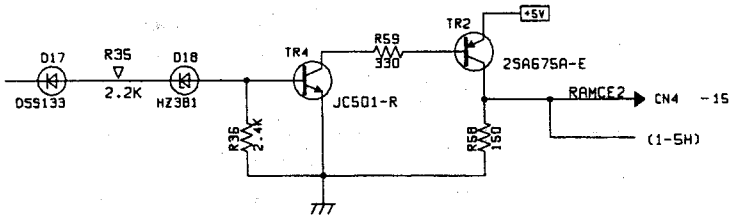


Fig. 3-3 SRAM data protection circuit

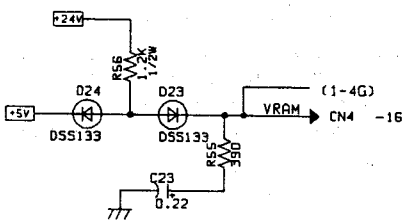


Fig. 3-4 SRAM power backup circuit

When power is turned on, TR2 and TR4 are off and RAMCE2 is at Low. After a while, when RESET becomes High, TR2 and TR4 conduct and RAMCE2 becomes High to bring SRAM into the operation mode.

When the power is turned off, $\overline{RESET}$ becomes Low and TR2 and TR4 are turned off. As a result, RAMCE2 is driven to Low and SRAM is brought into the standby mode, preventing erroneous data writing.

With the above sequence, even though $\overline{RESET}$ voltage fluctuates on power on/off, $\overline{RAMCE2}$ is not affected by that, SRAM drive voltage VRAM is normally supplied from +24V. When, however, +24V level falls on turning off the power, it is supplied from C23.

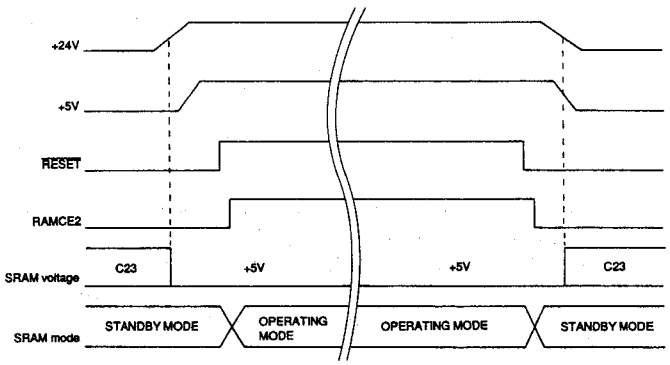


Fig. 3-5 SRAM operation timing

4. KEYBOARD INTERFACE

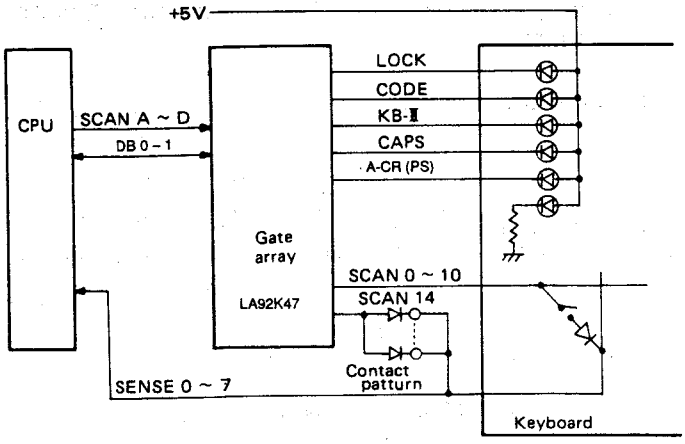


Fig. 4-1 Keyboard control concept

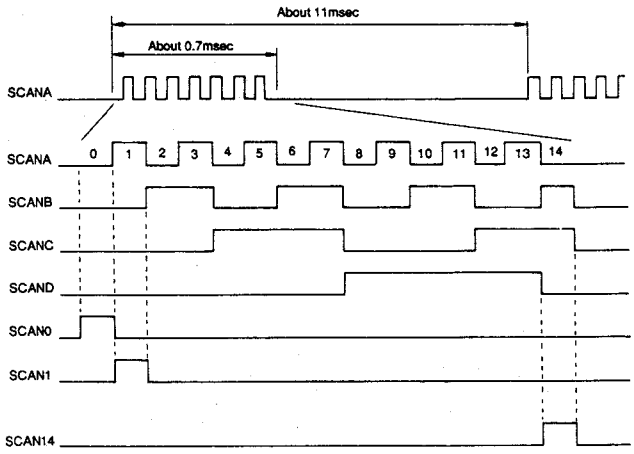


Fig. 4-2 Timing chart of scanning and sensing

The keyboard is controlled through the gate array by the CPU. CPU outputs SCANA ~ SCAND are decoded in the gate array to be Scan 0 ~ Scan 14. When keys are pressed, SENSE0 ~ SENSE7 corresponding to the pressed keys are delivered from the keyboard to the CPU.

The five LED's (LOCK, CODE, KBII,CAPS, A-CR(PS)) blink when the flip-flop in the gate array is changed by the CPU.

5. HAMMER CIRCUIT

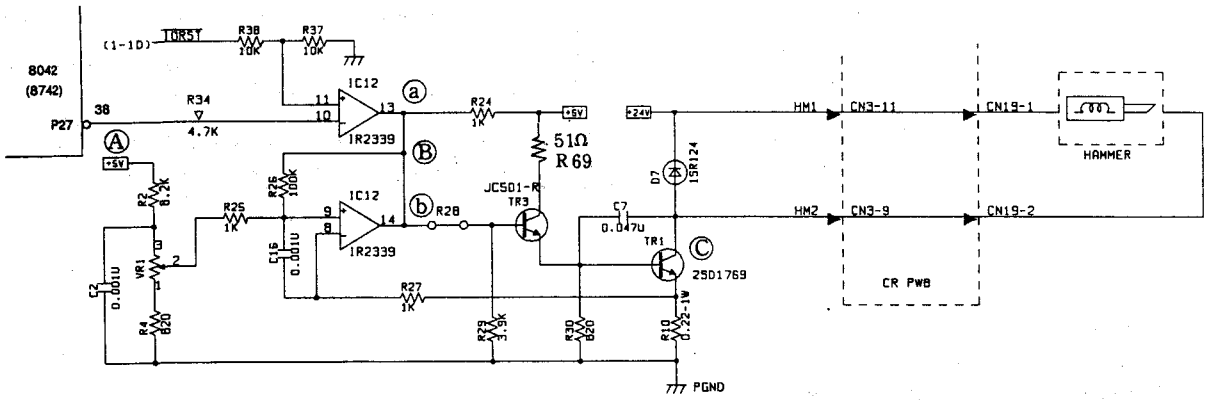


Fig. 5-1 Hammer circuit

When 8042 (8742) output $\overline{\text{HAMMER}}$ (A) falls below 2.5V, comparator (a) output is driven High. Since the output of comparator (b) which wired-OR with comparator (a) is also at High at the moment, the level at point (B) becomes High, turning TR1 and TR3 on and conducting the HAMMER. When voltage at point (C) exceeds the threshold voltage determined by VR1, the level at point (B) is driven Low by comparator (b) and TR3 is turned off. As a result, HAMMER current is restricted by TR1.

By repeating the above operations, the HAMMER current is controlled.

When $\overline{\text{HAMMER}}$ is driven to High, conduction to the HAMMER is completed. When $\overline{\text{IORST}}$ becomes Low, point (B) is driven to Low by comparator (a). In this manner, malfunctions of the HAMMER are prevented.

The voltage applied to the HAMMER is controlled with VR1. Turning VR1 clockwise increases the peak value of the $\overline{\text{HAMMER}}$ current to increase the applied voltage. The applied voltage is controlled also with the software. That is, the duration of HAMMER at Low level is changed to change the conduction time of the HAMMER, controlling the applied voltage.

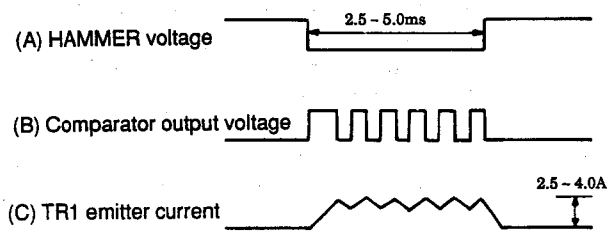


Fig. 5-2 Waveforms of voltages and currents

6. PULSE MOTOR DRIVE CIRCUIT

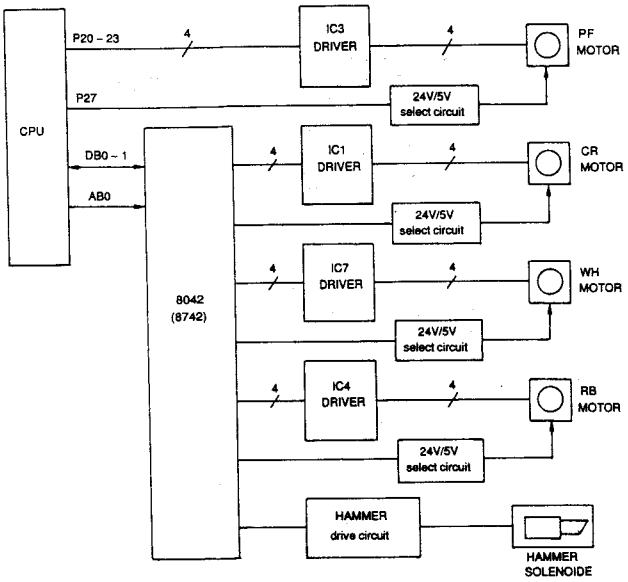


Fig. 6-1 PULSE MOTOR drive circuit clock diagram

There are four pulse motors used: CR (carrier), WH (wheel), RB (ribbon), land PF (paper feed). The PF motor is directly controlled by the CPU port P20 - P23, and P27, and the other three motors are controlled by the controller 8042 (8742).

6-1 Motor drive circuits

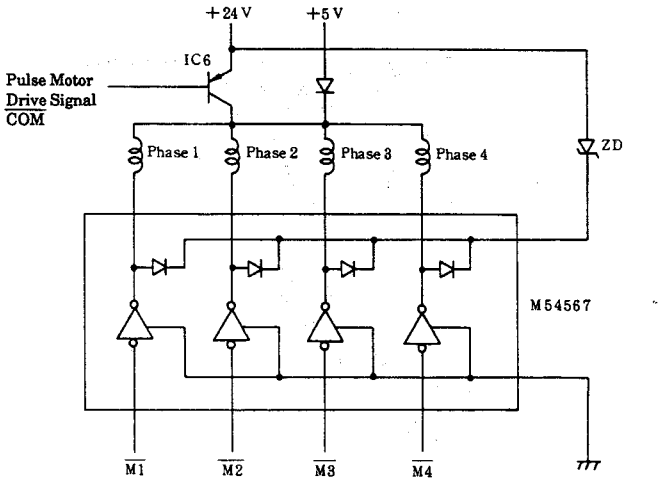


Fig. 6-2 Pulse motor drive circuit

The motors are 4-phase pulse motors and are controlled with the four phase signals from the CPU or 8042(8742) through driver M54567. Transistor array IC6 selects 24V/5V of the pulse motor drive voltage with drive signals. When drive signals are at low level, 24V is selected, and when at high level, 5V is selected. M54567 phase outputs are connected to +24V line by the zener diode ZD to smooth the phase change.

NOTE: Basically, the carrier, ribbon, and printwheel drive motor circuits are same, except for the paper feed motor circuit which is controlled by the CPU.

6-2 Timmings

The pulse motor operates according two modes of phase control.

6-2-1. Pulse motor excitation

Each pulse motor is driven by the 1-2 phase excitation or 2-phase excitation. The drive voltage is selected with the drive signals to control the torque.
The table below shows the exciting system and unit operation quantity of each motor.

Table 6-1 Exciting system and operation quantity of each motor

	1-2 phase excitement		2-phase excitement		Remarks (Operation block)
	Unit operation angle	Unit operation dormitory	Unit operation angle	Unit operation dormitory	
Carrier Motor	3.75°	1/240"	7.5°	1/120"	Carriage base
Wheel Motor	3.75°	1/2 spoke	7.5°	1 spoke	Print wheel
Ribbon Motor	Not used	Not used	7.5°	About 0.3mm	Ink ribbon
Paperfeed Motor	Not used	Not used	7.5°	1/96"	Platen

(NOTE) For the carrier motor and the wheel motor, the exciting system is selected according to the operation quantity.

6-2-2. 1-2 Phase Excitation

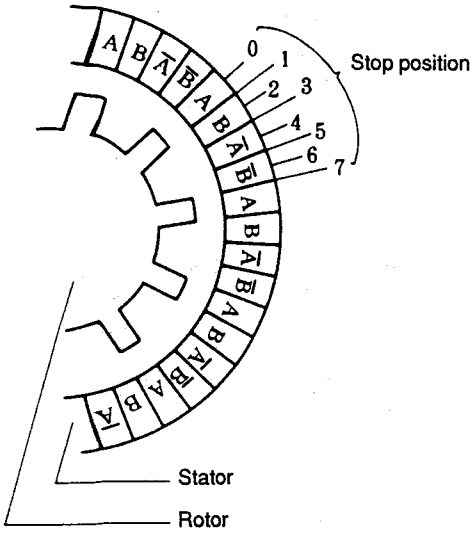


Fig. 6-3

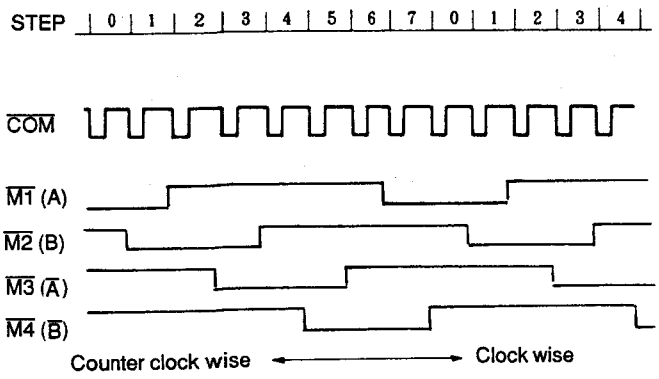


Fig. 6-4

6-2-3. 2-phase excitation

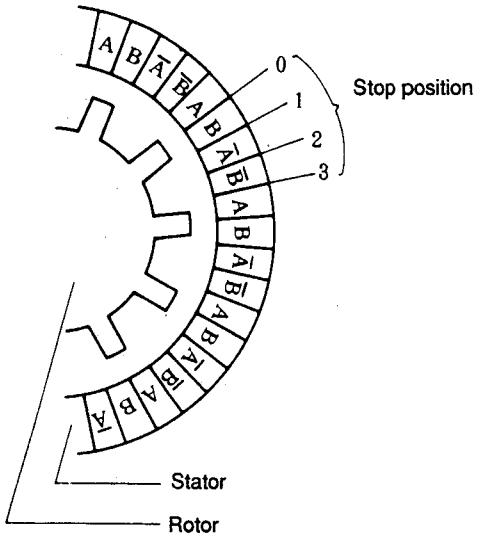


Fig. 6-5

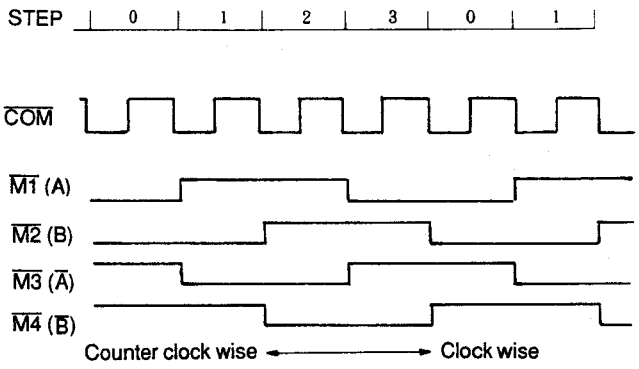


Fig. 6-6

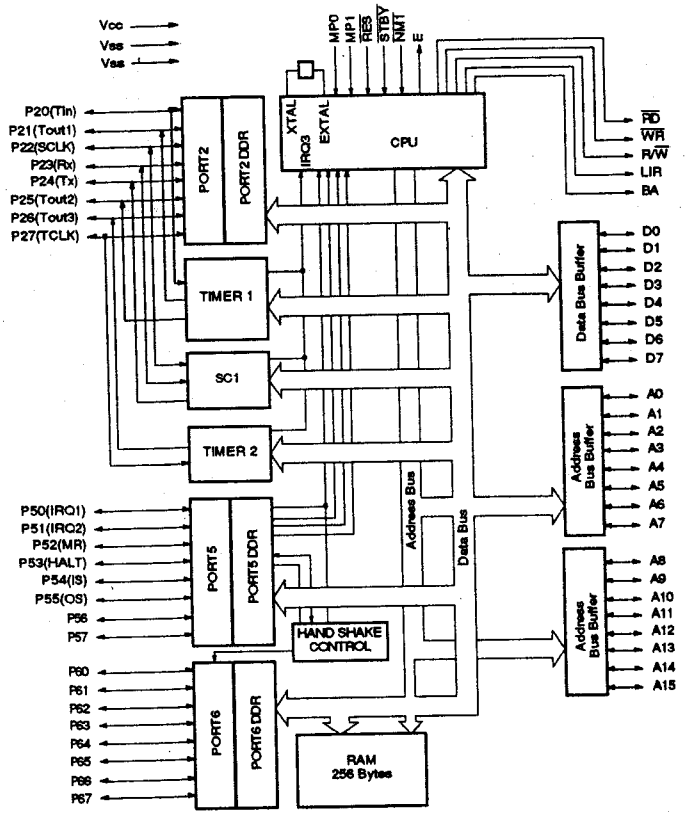
(NOTE)

1. Fig. 6-4 and 6-6 are shown for basic timing charts. The pulse rate for pulse motor drive signal is may change when condition of start the motor, to decelerate the motor before stopping, and how many times to operate the motor steps.
2. Motor control methods (rotating angle and basic advance rate)

7. Major LSI"s block diagram and terminal table

7-1 CPU (HD63B03Y)

Block diagram



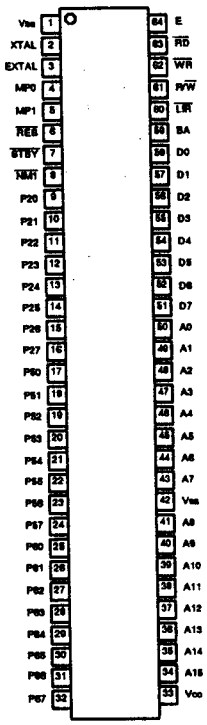


Table 7-1 HD 63B03Y terminal table

Pin No.	CUP terminal name	Signal name	I/O	Meaning	Remarks
1	VSS	S-GND	—	Signal, ground	
2 3	XTAL ExTAL	XTAL ExTAL	I I	7.373MHz oscillator (Ceralock) is used.	
4 5	MP0 MP1	MP0 MP1	I I	Fixed to VCC. Mode 1: Expansion mode is used. Fixed to 0V.	Internal ROM inhibited
6 7 8	$\overline{RES}$ $\overline{STBY}$ $\overline{NMI}$	$\overline{RESET}$ $\overline{STBY}$ $\overline{NMI}$	I I I	CPU hard reset terminal } Not used. Fixed to VCC	
9 10 11 12	P20 P21 P22 P23	APM1 BPM2 $\overline{APM3}$ $\overline{BPM4}$	O O O O	PF motor phase A PF motor phase B PF motor phase $\overline{A}$ PF motor phase $\overline{B}$	PM pulse motor 2-phase excitement system is used.
13 14	P24 P25	$\overline{RS232C}$ $\overline{CENTRO}$	I I	With COM-OPTION, RS-232C connection is displayed. With COM-OPTION, CENTRO connection is displayed.	H: Without COM-OPTION H: Without COM-OPTION
15	P26	BZ	O	Buzzer ON (ON/OFF with 1.5KHz rectangular waveform)	
16	P27	$\overline{PFDRV}$	O	Low level output: Motor drive	L: drive, H: standby
17	P50	$\overline{IRQ1}$	I	$\overline{POFF}$ input terminal	Low: Power off
18	P51	$\overline{IRQ2}$	I	Input terminal from $\overline{PFLEV}$	
19	P52	MR	I	Memory ready signal request	Low: API operation
20	P53	$\overline{HALT}$	I	Fixed to High.	
21 22 23 24	P54 P55 P56 P57	SCANA SCANB SCANC SCAND	O O O O	Key scan signal	
25 26 27 28 29 30 31 32	P60 P61 P62 P63 P64 P65 P66 P67	SENSE 0 1 2 3 4 5 6 7	I ↑ ↓ I	Key sense input signal	
33	Vcc	Vcc	I	Connected to +5V.	
34 35 36 37 38 39 40 41	P47 P46 P45 P44 P43 P42 R41 P40	A15 A14 A13 A12 A11 A10 A9 A8	O O O O O O O O	Address bus 15 14 13 12 11 10 9 8	
42	Vss	S-GND	—	Signal, ground	
43 44 45 46 47 48 49 50	P17 P16 P15 P14 P13 P12 P11 P10	A7 A6 A5 A4 A3 A2 A1 A0	O O O O O O O O	Address bus 7 6 5 4 3 2 1 0	
51 52 53 54 55 56 57 58	P37 P36 P35 P34 P33 P32 P31 P30	D7 D6 D5 D4 D3 D2 D1 D0	I/O ↑ ↓ I/O	Data bus 7 6 5 4 3 2 1 0	
59 60 61 62 63 64	P74 P73 P72 P71 P70 E	BA $\overline{LIR}$ R/$\overline{W}$ $\overline{WR}$ $\overline{RD}$ E	O ↑ O	Not used. Not used. (Operation code fetch display) Not used. Read/write signal output terminal Write signal output terminal Read signal output terminal Bus synchronization clock	

7-2 Gate Array (LZ92K47)

Gate Array Function Diagram

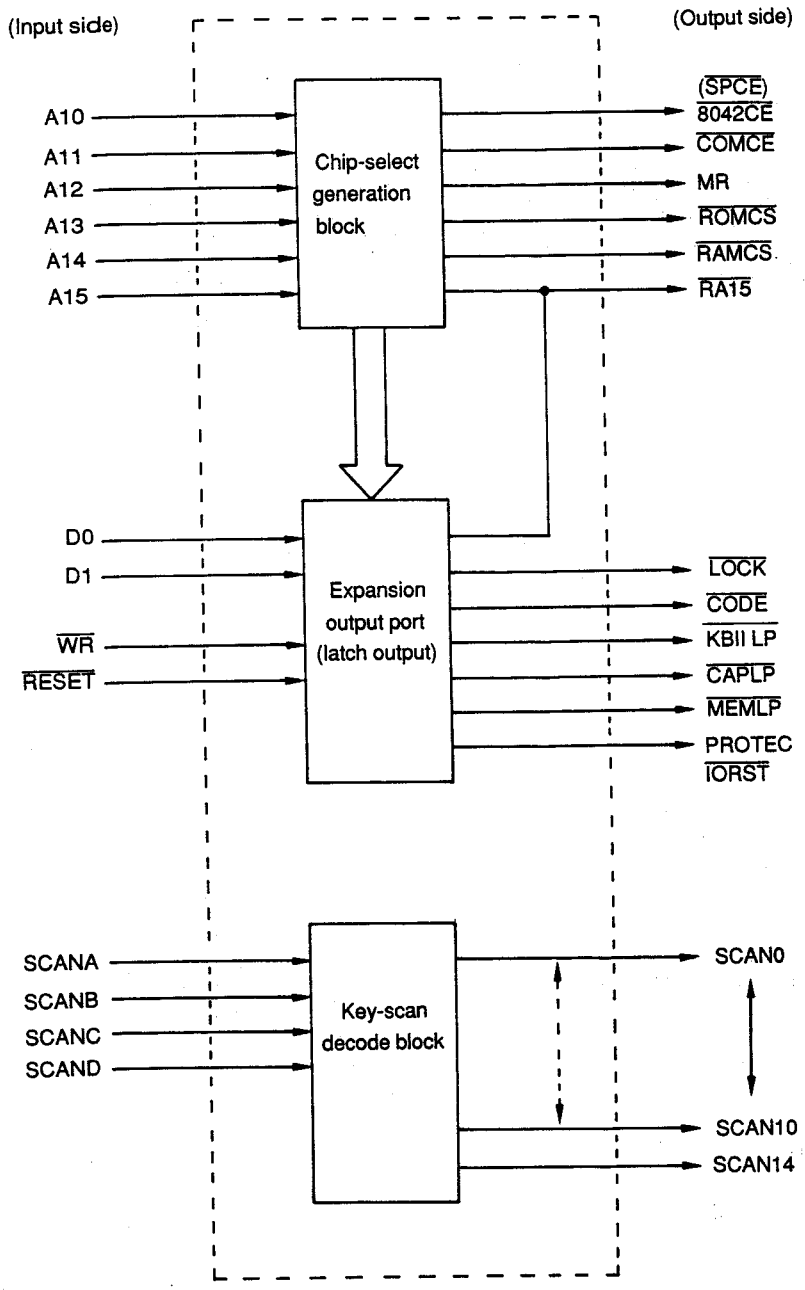


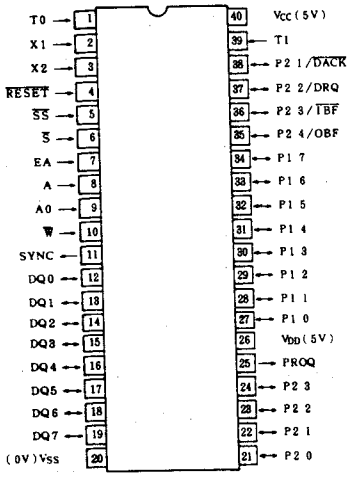
Table 7-3 LZ92K47 terminal table

Pin No.	Signal name	I/O (NOTE)	Meaning	Remarks
1	RA15	O	ROM bank select (ROM A15)	
2	$\overline{\text{ROMCS}}$	O	ROM chip select	Low: select
3	$\overline{\text{RAMCS}}$	O	RAM chip select	Low: select
4	A10	I	Address bus	
5	A11	I		
6	A12	I		
7	A13	I		
8	A14	I		
9	A15	I		
10	D0	I	Data bus	
11	D1	I		
12	MR	O	Memory ready (select to low speed memory access mode)	Low: low speed mode High: normal
13	PROTEC	ON	Memory protect (When power off, RESET delay is controlled.)	
14	$\overline{\text{WR}}$	ICS	Write signal input	Internal flip-flop writing
15	$\overline{\text{PRESET}}$	ICS	Reset signal	Low: reset
16	$\overline{\text{IORST}}$	ON	I/O reset signal output (reset to 8042. etc.)	Low: Reset
17	SCANA	IU	Key scan signal input (from CPU)	
18	SCANB	IU		
19	SCANC	IU		
20	SCAND	IU		
21	GND	—	GND	
22	SCAN14	ON	Key scan decode signal output (to keyboard)	
23	SCAN10	ON		
24	SCAN9	ON		
25	SCAN8	ON		
26	SCAN7	ON		
27	SCAN6	ON		
28	SCAN5	ON		
29	SCAN4	ON		
30	SCAN3	ON		
31	SCAN2	ON		
32	SCAN1	ON		
33	SCAN0	ON		
34	$\overline{\text{MEMLP}}$	ON	Auto carriage return LED	Low: lights up.
35	$\overline{\text{CAPLP}}$	ON	Capital lock LED	
36	$\overline{\text{KBIILP}}$	ON	KBII LED	
37	$\overline{\text{CODE}}$	ON	CODE LED	
38	$\overline{\text{LOCK}}$	ON	LOCK LED	
39	$\overline{\text{SPCE}}$	O	Spell option enable signal	Low: select
40	$\overline{\text{COMCE}}$	O	Interface option enable signal	Low: select
41	$\overline{\text{8042CE}}$	O	8042/8742 chip enable signal	Low: select
42	Vcc	—	Vcc	

(NOTE)
- I: Input terminal (TTL level)
- IU: Input terminal (TTL level, pull-up resistor included)
- ICS: Input terminal (CMOS schmitt)
- O: Output terminal
- ON: Output terminal (N-ch open drain)

7-3 Controller (8042/8742)

Pin configuration



Block diagram

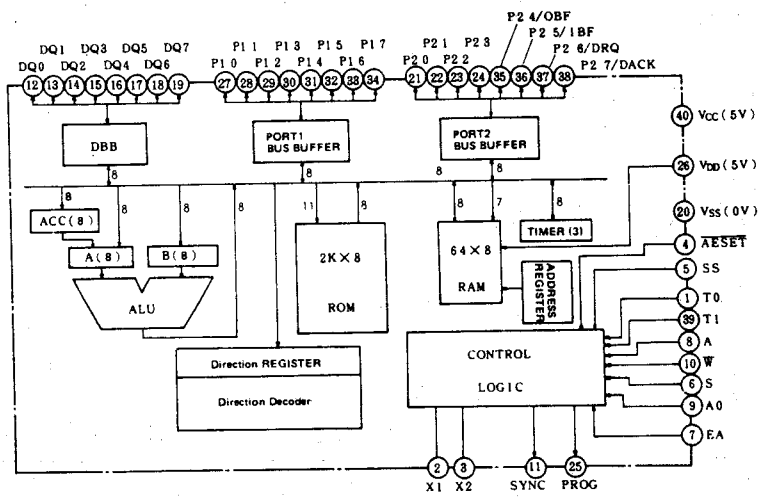


Table 7-4 8042/8742 terminal table

Pin No.	CPU terminal name	Signal name	I/O	Meaning	Remarks
1	T0	—	I	Not used.	Fixed to VCC level.
2 3	X1 X2	X1 X2	I I	12.0MHz clock input	
4	$\overline{\text{RESET}}$	$\overline{\text{IORST}}$	I	8042 (8742) Reset signal	Low: reset
5	$\overline{\text{SS}}$	—	I	Not used	Fixed to Vcc level.
6	$\overline{\text{CS}}$	$\overline{\text{8042CE}}$	I	8042 (8742) chip enable	Low: select
7	EA	—	I	Not used	Fixed to GND level.
8	$\overline{\text{RD}}$	$\overline{\text{RD}}$	I	Read signal	
9	A0	A0	I	Address bus	
10	$\overline{\text{WR}}$	$\overline{\text{WR}}$	I	White signal	
11	SYNC	—	O	Not used	Open
12 13 14 15 16 17 18 19	D0 D1 D2 D3 D4 D5 D6 D7	D0 D1 D2 D3 D4 D5 D6 D7	I/O	Data bus	For data transmission between CPU and 8042/8742
20	VSS	GND	—	GND	
21 22 23 24	P20 P21 P22 P23	$\overline{\text{RM1}}$ $\overline{\text{CDRV}}$ $\overline{\text{RM2}}$ $\overline{\text{WDRV}}$	O	Ribbon motor 1st phase signal Carrir motor drive siganl Ribbon motor 2nd phase signal Wheel motor drive signal	Low: active High: off
25	PROG	—	O	Not used	
26	$\overline{\text{STOP}}$	—	I	Not used	Fixed to VCC level.
27 28 29 30 31 32 33 34 35 36 37 38	P10 P11 P12 P13 P14 P15 P16 P17 P24 P25 P26 P27	$\overline{\text{CM1}}$ $\overline{\text{WM1}}$ $\overline{\text{CM2}}$ $\overline{\text{WM2}}$ $\overline{\text{CM3}}$ $\overline{\text{WM3}}$ $\overline{\text{CM4}}$ $\overline{\text{WM4}}$ $\overline{\text{RM3}}$ $\overline{\text{RDRJ}}$ $\overline{\text{RM4}}$ $\overline{\text{HAMMER}}$	O	Carrier motor 1st phase signal Wheel motor 1st phase siganl Carrier motor 2nd phase signal Wheel motor 2nd phase signal Carrier motor 3rd phase signal Wheel motor 3rd phase signal Carrier motor 4th phase signal Wheel motor 4th phase signal Ribbon motor 3rd phase signal Ribbon motor drive signal Ribbon motor 4th phase signal Hammer drive signal	Low: active High: off
39	T1	$\overline{\text{CRZ}}$	I	Carriage home position signal	Low: home position
40	Vcc	Vcc	—	+5V	

7-4 Main ROM

As the main ROM, 512KBit mask ROM (28-pin), 512KBit EPROM (28-pin), or 1MBit EPROM (32-pin) can be used. As shown in the figure below, execution of pattern cutting (1 position) and addition of a part allow the use of 1MBit mask ROM (28-pin).

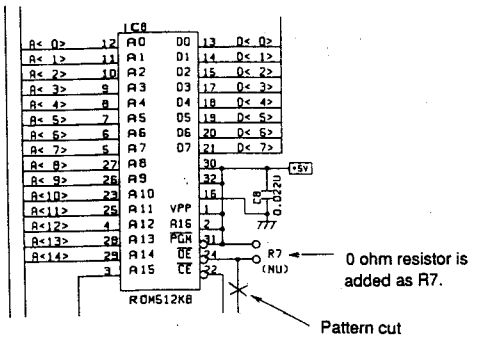


Fig. 7-4 Pattern change when 1MBit mask ROM is used

When 1MBit ROM is used, only 64KByte (512KBit) of address 10000H ~ 1FFFFH is valid, which corresponds to address 0000H ~ FFFFH of 512KBit ROM. When 28-pin package type ROM is used, insert ROM so that PWB 3-pin thru 30-pin correspond to ROM 1-pin thru 28-pin. (PWB 1, 2, 31, and 32-pin are open.)

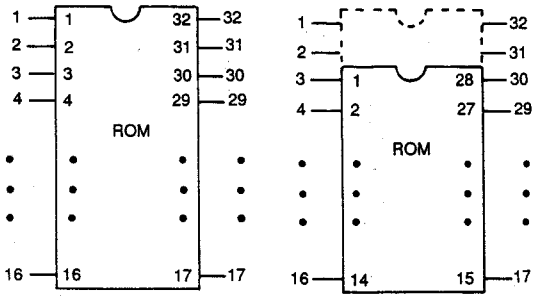


Fig. 7-5 ROM insertion

Table 7-5 Type of ROM used and use condition

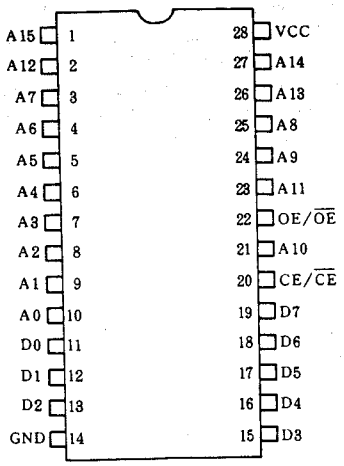
ROM type	Pin No.	Address used	PWB insertion	PWB change
512K MASK-ROM	28	0000H ~ FFFFH	ROM 1 ~ 28 pin correspond to PWB 3 ~ 30 pin.	
512K EPROM	28			
1M MASK-ROM	28	10000 ~ 1FFFFH (Corresponds to real address 0000H ~ FFFFH.)		Pattern cut: 1 position Part addition: 1 pc.
1M EPROM	32		Same as pin No.	

Table 7-6 ROM terminal table

Pin No. PWB	Pin No. 32 pin ROM	Pin No. 28 pin ROM	Terminal name	Signal name	I/O	Meaning	Remarks	
1	1	—	V_{PP}	—	—	Not used	Fixed to VCC level.	
2	2	—	A16	—	—	Address bus	Fixed to VCC level.	
3	3	1	A15	RA15	I	Address bus		
4	4	2	A12	A12	I			
5	5	3	A7	A7	I			
6	6	4	A6	A6	I			
7	7	5	A5	A5	I			
8	8	6	A4	A4	I			
9	9	7	A3	A3	I			
10	10	8	A2	A2	I			
11	11	9	A1	A1	I			
12	12	10	A0	A0	I			
13	13	11	D0	D0	O	Data bus		
14	14	12	D1	D1	O			
15	15	13	D2	D2	O			
16	16	14	Vss	GND	—	GND		
17	17	15	D3	D3	O			
18	18	16	D4	D4	O			
19	19	17	D5	D5	O			
20	20	18	D6	D6	O			
21	21	19	D7	D7	O			
22	22	20	$\overline{CE}$	$\overline{ROMCS}$	I	ROM chip select	Low: select	
23	23	21	A10	10	I	Address bus		
24	24	22	$\overline{OE}$	$\overline{RD}$	I	Output enable	Low: enable	In case of other than 1M mask ROM
			A16	—	—	Address bus	Fixed to VCC level.	In case of 1M mask ROM
25	25	23	A11	A11	I	Address bus		
26	26	24	A9	A9	I			
27	27	25	A8	A8	I			
28	28	26	A13	A13	I			
29	29	27	A14	A14	I			
30	30	28	Vcc	Vcc	—	Vcc	In case of 28 pin package ROM	
31	31	—	$\overline{PGM}$	—	—	Not used	Fixed to VCC level.	
32	32	—	Vcc	Vcc	—	Vcc	In case of 32 pin package Rom	

Fig. 7-6 512 KBit mask ROM (LH531423)

Pin configuation



Block diagram

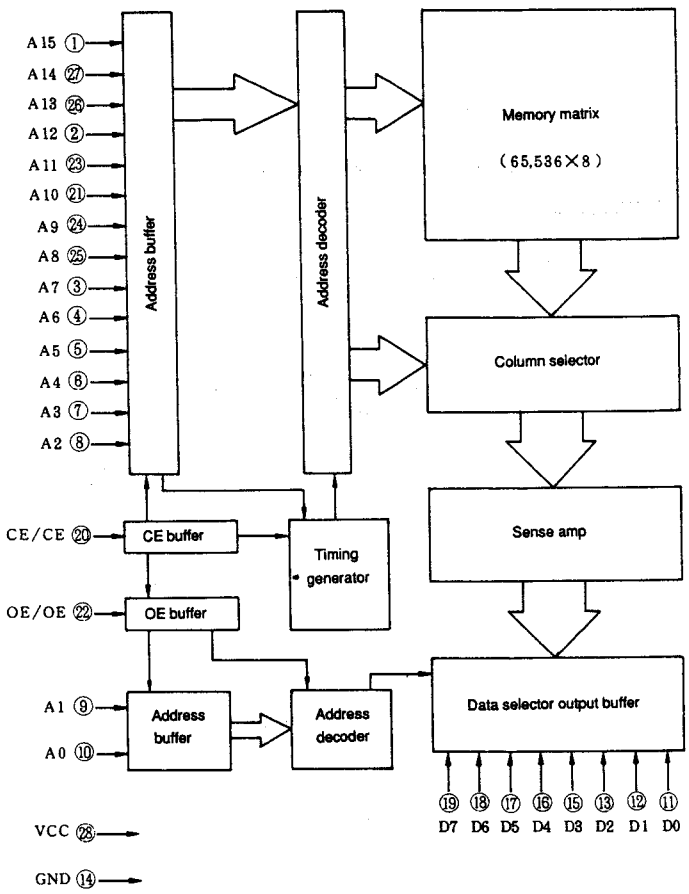
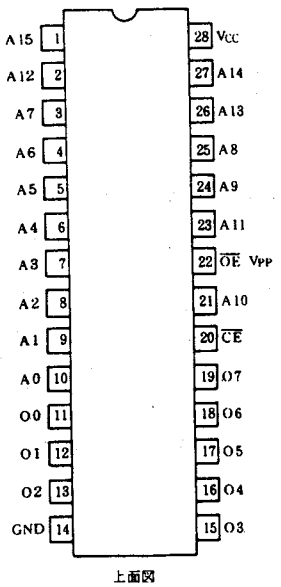


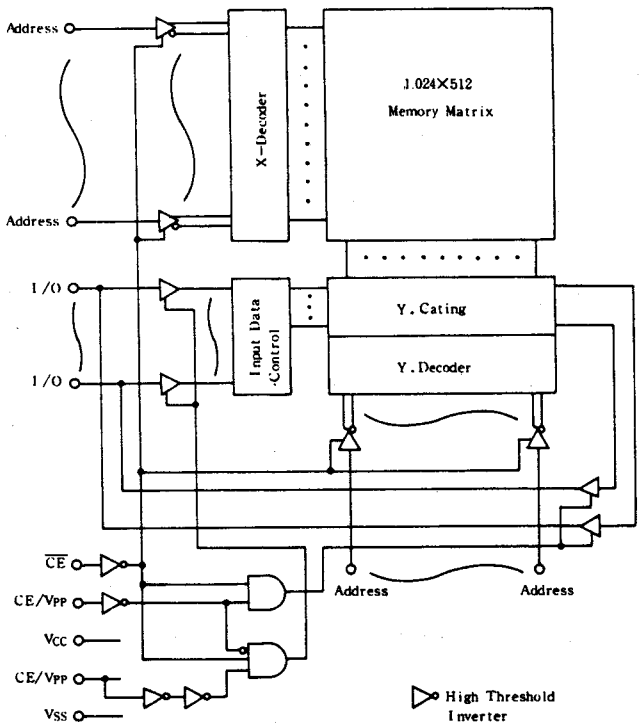
Fig. 7-8 512KBit EPROM (VHI27512XXXXX)

Pin configuation



上面図

Block diagram



8. Power supply

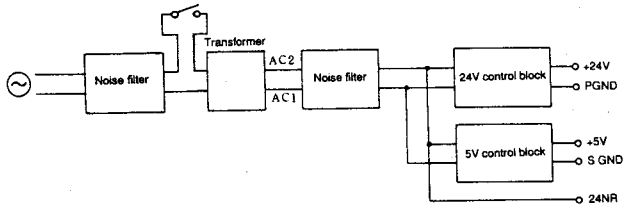


Fig. 8-1 Power supply block diagram

8-1 Input block

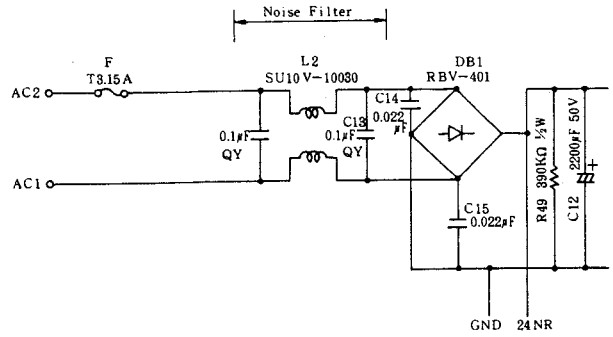


Fig. 8-2 Input block circuit diagram

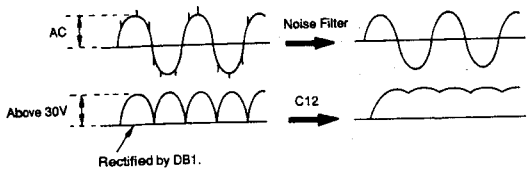


Fig. 8-3 Noise filter and C12 effect

AC voltage (AC1, AC2) dropped by the transformer is passed to the noise filter where noises are removed, and then rectified by DB1 and smoothed by C12, being transformed into a DC voltage of about 30V.

8-2 24V control block

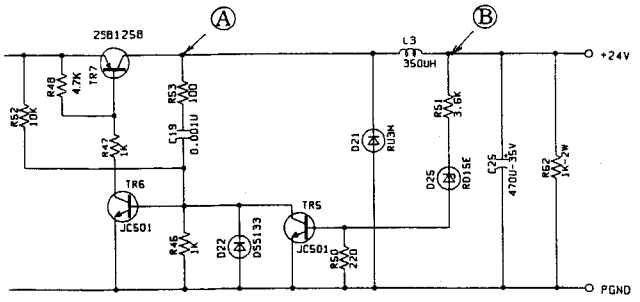


Fig. 8-4 24V control block circuit diagram

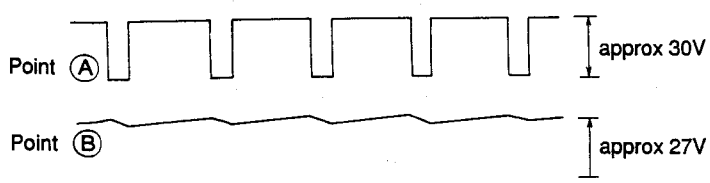


Fig. 8-5 Waveform at each point

The voltage of 24NR (about 30V DC) formed in the input block is passed intermittently through TR7 to point (A), and smoothed by L3 and C25 to be the waveform at point (B). When voltage at point (B) exceeds about 27V, zener diode D25 turns on, conducting TR5 and turning off TR6 and TR7. As a result, voltage at point (A) falls rapidly. Therefore, voltage at point (B) falls gradually to turn off zener diode D25. Consequently, TR5 is turned off and TR6 and TR7 are turned on. Then voltage at point (A) reaches about 30V, and voltage at point (B) starts increasing again. With the repetition of the above process, the output voltage is maintained virtually at constant.

8-3 5V control block

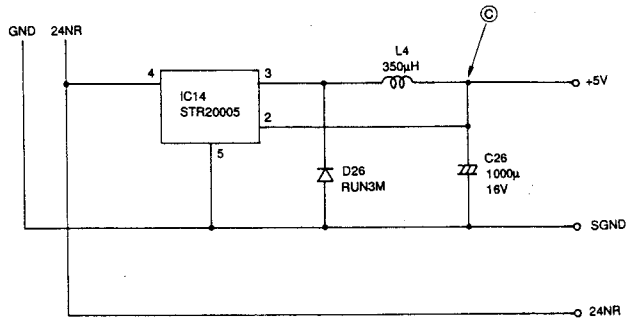


Fig. 8-5 5V control circuit

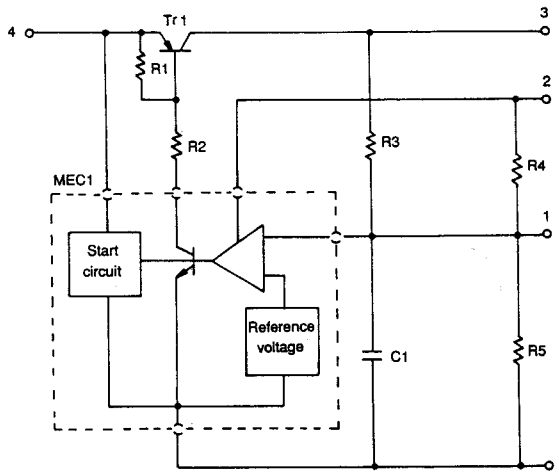


Fig. 8-6 STR20005 equivalent circuit

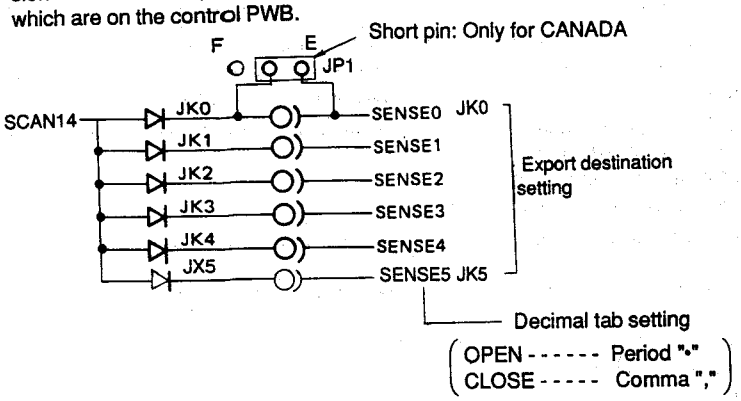
The power voltage +5V is made of DC voltage (about 30V) of 24NR by the regulator IC14.

As shown in Fig. 8-4, voltage at point (C) is compared with the reference voltage to turn on/off TR1 and smooth voltage at point (C) with L4 and C26. maintaining it at 5.1V +-0.1V. IC14 maintains the above output voltage when the input voltage (24NR) is within 8 - 40V. The voltage of 24NR is monitored with the reset circuit to prevent destruction of the register data by excess voltage in +5V line during the operation of the CPU. When the voltage of 24NR falls by turning off the power switch , etc.,necessary process (register saving, etc.) is performed before 24NR falls below 8V.

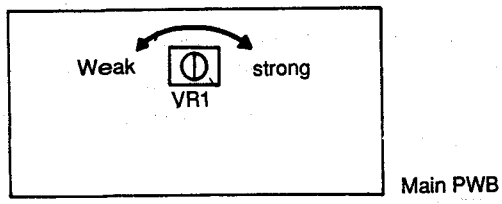
2. SETTING AND ADJUSTMENT

1. Setting

The JK must be connected independently according to the local version of the machine, which can be achieved by soldering JK0 ~ JK5 which are on the control PWB.



2. Hammer pressure Adjustment



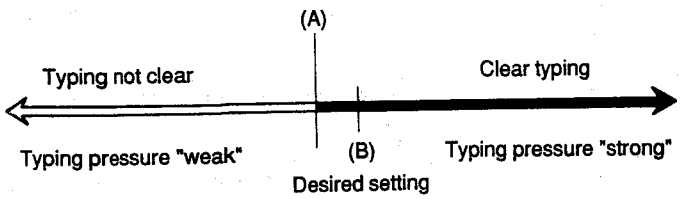
Print the entire character set on the print wheel using the diagnostics. Adjust the hammer pressure with control VR1 on the main board.

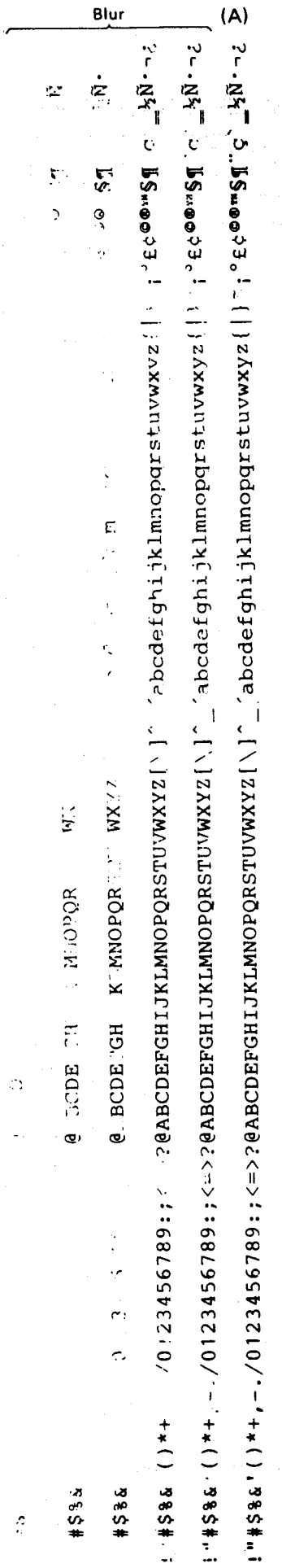
How to get the print diagnostics

CODE Key + KBII Key + A A A Key

[Adjustment Specifications]

Paper: Sharp standard copier paper
Typing Pressure: Lever O
Use VR1 to adjust the hammer pressure. Slowly turn VR1 to find the position (A) at which the blurriness of the characters disappears, and then set VR1 to a position (B) 1 of mark indicated around potentiometer in the direction of increased hammer pressure.

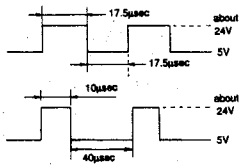




III TROUBLE SHOOTING

1. TROUBLE SHOOTING

Symptom	Item	Check	Service Method
1. The carrier does not move with SW-ON (Switch On).	Power supply output	• Check the output voltage of the power supply unit (CN8: above 30VAC) • Inspect the fuse.	• Service or replace the power supply unit if outside the ratings. • Replace the fuse if blown.
	Connector	• Check to see that the power supply connector (CN8) and carrier motor connector (CN7) are connected to their proper locations on the main board.	• Connect the connector to its proper location if disconnected.
	Timing belt	• Check to see that the timing belt is not cut. • Check to see that the carrier and timing belt are attached. • Check to see that the timing belt is properly wound around the drive pulley and idler pulley. • Check to see that timing belt tension is within standards.	• Replace if cut. • Attach with belt clip if not attached. • Wind properly if unwound. • Adjust the timing belt tension if not within standards. (See section 1. Adjustment of the Timing Belt Tension.)
	Carrier load with SW-OFF and the carrier motor connector disconnected, move the carrier by hand.	• Check to see that the meshing of the drive pulley gear is not too tight. • Check to see that there is no foreign matter at the meshing portion of the drive pulley gear. • Is the rotation of the drive pulley and idler pulley smooth? (Check by removing the timing belt.)	• Adjust meshing if too tight. (See section 2. Adjustment of the Carrier Motor Attachment Position.) • Remove foreign matter if found. • Replace if rotation is not smooth.
	Carrier motor	• Check the electrical continuity of the motor. Measure the resistance between the common terminal of the motor (pins 1 and 2 of CN-7) and each phase terminal (pins 3 – 6 of CN-7). (Normal resistance: 50Ω±7%) (CN-7) Commom terminal Phase terminal pin 1 – pin 3 pin 1 – pin 4 pin 2 – pin 5 pin 2 – pin 6	• Replace the carrier motor if there is a break in the winding or if the resistance is not within standards.
	Power supply voltage	• Check to see that the AC input voltage is within the range of –10 to +10%.	• Service the power supply circuit if not within the range.
2. Carrier moves erratically	Carrier sensor	• Check to see that the carrier zero signal is output (Pin 39 of IC5: 0V)	• Replace the carrier sensor if the signal is not output.
	Carrier motor	• Check to see that no lines are cut.	• Replace the motor if there is a broken line.
	Power supply output	• Check the output voltage of the power supply unit (CN-8: above 30VAC) • Inspect the fuse.	• Service or replace the power supply unit if outside the ratings. • Replace the fuse if blown.
	If the above items are normal	• Main board	• Service or replace the main board.
3. Prit wheel motor does not rotate	Connector	• Check that the carrier flat cable and connector (CN-3) are correctly fastened to the main PWB and the other connector (CN-17) to the carrier PWB.	• Connect properly if disconnected.
	Power supply output	• Check the output voltage of the power supply unit (CN-8: above 30VAC) • Inspect the fuse.	• Service or replace the power supply unit if outside the ratings. • Replace the fuse if blown.

Symptom	Item	Check	Service Method
	Print wheel motor	• Check the electrical continuity of the motor. Measure the resistance between the common terminal of the motor (pin 2 of CN-3, pins 1 and 2 of CN-17) and each phase terminal (pins 4, 6, 8, 10 of CN-3, pins 3 ~ 6 of CN-17). Normal resistance: 110Ω ±7% (CN-3) Common terminal Phase terminal pin 2 ↔ { pin 10, pin 8, pin 6, pin 4 (CN-17) Common terminal Phase terminal pin 1 ↔ { pin 3, pin 4 pin 2 ↔ { pin 5, pin 6	• Replace the print wheel motor if there is a broken line or if the resistance is not within standards.
	Insertion of the print wheel cassette	• Inspect the positional relationship between the print wheel and the print wheel motor flange when inserting the cassette. • Check to see that there is no foreign matter.	• Service if the positional relationship is unsatisfactory. • Remove foreign matter if found.
	Print wheel motor driver circuit	• Check if the cathode side of the diode D8 is added with the following voltage: Standby: 	• Immediately after power on:
	Power supply voltage	• Check to see that the AC input voltage is within the range of −10 to +10%.	• Service the power supply circuit if not within the ratings.
4. Print wheel motor home position (wheel does not come to its home position during the initializing)	Wheel rotation	• Check that wheel rotates.	• Refer to 3. print wheel motor does not rotate above.
	Zero-sense lever	• Check that wheel flange is locked.	• Move CR shack to the left to shift the carriage home position leftward. • Replace zero-sense lever if damaged.
	Wheel-zero actuator	• Check that it is not bent and it presses zero-sense lever correctly.	• Straighten it by hand if it is bent.
5. Nothing can be entered via the keyboard	Keyboard connector	• Check to see that the connector (CN-5) is not disconnected.	• Plug into its proper position if disconnected.
	Keyboard	• Check to see that the specified signal appears when a key is entered.	• Replace the keyboard if the signal does not appear.
	If the above items are normal.	• Main board	• Service or replace the main board.
6. Abnormal printing: Does not print, mispring, defective printing, etc.	Ribbon	• Check to see that the ribbon is properly installed and is at the end.	• Properly install the ribbon. Install a new ribbon if the ribbon is at the end.
	Print wheel	• Check to see that the print wheel is installed and properly positioned. • Is the print wheel rotating normally?	• Install properly. • See symptoms 3 and 4.
	Hammer: Does not operate or operates but does not print.	• Is the hammer connector (CN-19) connected to the carrier board? • Check to see that there is no cut in the carrier flat cable. • Check the electrical continuity of the hammer. • It is normally about 4.15Ω. • Insert an M3 hex wrench into the hole at the rear of the hammer and push out the hammer. Check to see if the movement of the hammer is smooth.	• Connect if disconnected. • Replace if cut. • Measure the resistance or the coil. • Replace the hammer if a wire is cut or if the resistance is not within standards. • Replace the hammer if the movement is not smooth.

Symptom	Item	Check	Service Method
	Ribbon feed	• Is the ribbon take-up pawl inserted properly.	• Install properly.
		• Check to see that there is no disconnection of the ribbon motor connector (CN-18), no disconnection or cuts in the carrier flat cable connector (CN-3), and no cut wires in the carrier board.	• Connect if disconnected. • Replace the carriage board if there is a cut wire.
		• Check the electrical continuity of the ribbon motor. Normal resistance: 60Ω ± 7% Pin 1–3, 4 If cut : 5,6	• Measure the resistance between the motor terminals. • Replace the ribbon motor is a wire is cut or it the resistance is not within standards.
		• Check to see that the meshing of the motor gear, and the gears and ratchet in the gear holder is normal and that the rotation is smooth.	• Adjust the installation position of the motor gear if the meshing of the bevel gear and the motor gear is not normal. • Replace the gear holder unt in all other cases.
		• Check to see that the gears, ratchet, ribbon take-up, shaft, ribbon take-up pawl are not damaged.	• Replace if damaged.
	Ribbon lift cam home position	• Check that the cam comes to it shome position during the initializing.	• Adjustment.
	Ribbon lift	• Check to see that the cam follower pin is properly positioned in the cam groove of the lift cam.	• Properly position if the cam follower pin is loose.
		• Check to see that the home position of the lift cam is proper after power-on.	• Adjust the home position. (See section 7. Ribbon Lift Cam Home Position Adjustment.)
		• Alternately print a vertical line and under-score. Check the impressions on the ribbon and check the lift amount. (See section 8. Adjustment of the Ribbon and Correction Tape Lift.)	• Adjust the cam follower slide for proper lift amount. (See section 8. Adjustment of the Ribbon and Correction Tape Lift.)
		• Check to see that the rotation of the lift cam is smooth, that the gear meshing is normal, and that there is not damage.	• Replace the lift cam if abnormal.
	Hammer striking	• Using a carbon paper, type the charactor "H" across the full typing line with the impression control at "O" and check the quality of the characters.	• Adjust the hammer clearance and slide shaft height if the darkness of the character is not consistent. (See section 3. Adjustment of the Distance Between the Platen and the Hammer, and 4. Parallel Adjustment of Slide Shaft.)
	Print wheel home position	• Check for deviation between the underscore spoke V locator and the hammer V groove.	• Adjust the home position of the print wheel if not correct. (See section 5. Adjustment of the Home Position of the Print Wheel Motor.)
	If the above items are normal	• Main board.	• Service or replace the main board.
7. Abnormal correction	Correction tape	• Is the correction tape (lift-off or cover-up) properly installed and not at the end?	• Install properly or replace.
	Correction tape lift	• Check to see that the cam follower pin is properly positioned in the cam groove of the lift cam.	• Properly position if the cam following pin is loose.
		• Check to see that the home position of the lift cam is proper after power-on.	• Adjust the home position. (See section 7. Ribbon Lift Cam Home Position Adjustment.)
		• Check to see that the cam follower pin touches the lower side of the cam groove (inner side).	• Make sure that no wire is in contact with the ribbon cartridge holder due to incorrect wiring treatment within the carrier. • Replace the cartridge holder spring.
		• Check to see that the operation of the cam support plate is normal. (See section 4-1 Ribbon Lift Mechanism and 4-2 Correction Tape Lift Mechanism.)	• Replace if abnormal.

Symptom	Item	Check	Service Method
	Correction tape lift	• Check to see that the tension of the correction tape is normal.	• Inspect and/or replace the left reel disk tension spring if there is no tension.
		• Check to see that the lift amount of the correction tape is normal.	• Adjust the lift amount if abnormal. (See section 8. Adjustment of the Ribbon and Correction Tape Lift.)
	Correction tape feed	• Check to see that the correction tape is fed by the correction lift.	• Adjust the lift amount if the tape is not fed. (See section 8. Adjustment of the Ribbon and Correction Tape Lift.) Adjust the installation position of the operating fulcrum shaft if the shift is normal. Replace the reel disk drive lever if still defective after the above adjustments.
	Displaced correction	• Check to see that the timing belt tension is within the specified range.	• Adjust if not within the range. (See section 1. Adjustment of the Timing Belt Tension.)
		• Check to see that the timing belt is firmly attached to the carriage with the screw.	• Firmly secure by tightening the screw if loose.
		• Check to see that there is no play in the the meshing of the carrier motor pinion gear and drive pulley gear.	• Adjust the gear meshing if there is play. (See section 2. Adjustment of the Carrier Motor Attachment Position.)
		• Check to see that the hammer is not loose or too much play in hammer blade.	• Replace the hammer if loose or side play is excessive.
8. The platen does not rotate.	Platen	• Is the platen installed in the proper position?	• Operate platen latches R and L and install properly.
	Paper feed motor	• Check to see that the paper feed motor connector (CN-6) is connected.	• Connect if disconnected.
		• Check the electrical continuity of the paper feed motor. Measure the resistance between the motor terminals. Normal resistance: 43Ω ± 7% 1 Pin – 3, 4 Pin; Cut wire : 5, 6 Pin	• Replace the paper feed motor if a wire is cut or if the resistance is not as specified.
	Idler gear	• Check to see that the rotation of the idler gear is smooth and that there is no damage.	• Replace the gear if it does not rotate, rotates sluggishly, or is damaged.
	Platen gear	• Check to see if the meshing with the knob clutch is normal. (Is knob L pressed in?) • Make sure that the M4 x 2 setscrew of the clutch has been fastened properly.	• If the meshing is not satisfactory: Check the platen gear and knob clutch, and replace if abnormal. Check the platen gear spring and replace if abnormal.
		• Check that the gear meshing is not too tight.	• Adjustment.
		• Check to see that the platen gear is not damaged.	• Replace the platen gear if damaged.
	Platen rotation	• Rotate the platen by hand and check to see if it rotates smoothly.	• Replace the platen bearing if the platen does not rotate smoothly.
	If the above items are normal	• Main board.	• Replace the main board.
9. Auto-insert does not operate.	Auto-insert switch	• Check to see that the lines for the auto-insert switch are not cut or that the connector (CN-2) is not disconnected.	• Connect if disconnected. Replace the switch if a line is cut.
10. Paper is not feed	Release lever	• Check to see that the release lever is not in the paper release position.	• Reset if in the paper release position.
	Feed roller	• Check to see that the feed roller rotates together with the platen.	• Check the feed roller, roller holder, and holder support, if the feed roller does not rotate. Replace defective parts.

2. DIAGNOSTICS

1. General

This diagnostic program is provided for supporting the service maintenance for the Model XQ-315 Electronic Typewriter.

2. Test Requirements

The following describes the requirements for the text excution.

One-shot beep will be issued if the test is not enabled.

1) The typewriter should not be in CENT, FLUSHRIGHT, and DTAB modes.
2) The typewriter should not be in the MANUAL CORRECTION mode.

3. Test Items

[1] Aging test

1) Key operation

   CODE + KB-II + G, G, G

2) Test description

   1. Continuous printing in the ASCII sequence, 110 characters, with a CR.
   2. Continuous printing with a pause of 300ms per character, 110 characters, with a CR.
   3. Continuous spacing, 110 characters, without CR.
   4. Continuous backspacing, 110 characters, without CR.
   5. Continuous spacing with a pause of 300ms per character, 110 characters, without CR.
   6. Continuous backspacing with a pause of 300ms per character, 110 characters, without CR.
   7. One inch tabulation, with five vertical lines printed one three lines, then a CR.
   8. Prints A, B, C, D, with a CR.
      Prints E, F, G, H, with a CR.
      Prints I, J, K, L, with a CR.
      Prints M, N, O, P, with a CR.
   9. Letters A thru P printed in 8. above are corrected.
   10. 11" forward paper feed is conducted and prints a vertical line, then 11" backward paper feed is conducted and prints a vertical line. This repeats two times.

* Steps 1. thru 10. will be continued to execute until the SPACE baris depressed. Depression of the SPACE bar causes the control to go out of the test routine after completing Step 10..

[2] Print all characters

1) Key operation

   CODE + KB-II + A, A, A

2) Description

   Continuous printing in the ASCII sequence, 110 characters, with a CR.

   The dead key character will be printed in conjunction with a space. With the depression of the SPCE bar, the control goes out of the test routine after printing the current line.

[3] Continuous print of "H" on one line

1) Key operation

   CODE + KB-II + Y, Y, Y

2) Description

   "H" is printed across the mechanical left margin to the mechanical right margin, then a CR is commanded.

   When the SPACE bar is depressed, the control goes out of the test routine after printing the current line.

[4] Memory test

1) Key operation

   CODE + KB-II + T, T, T

2) Description

   After writing the test data in the RAM area, they are read and verified if correctly written.
   If the test has been successful, three one-shot beeps are issued, and the contents of the RAM wee saved. Involvement of an error issues continuous beeps.

[5] Memory all clear

1) Key operation

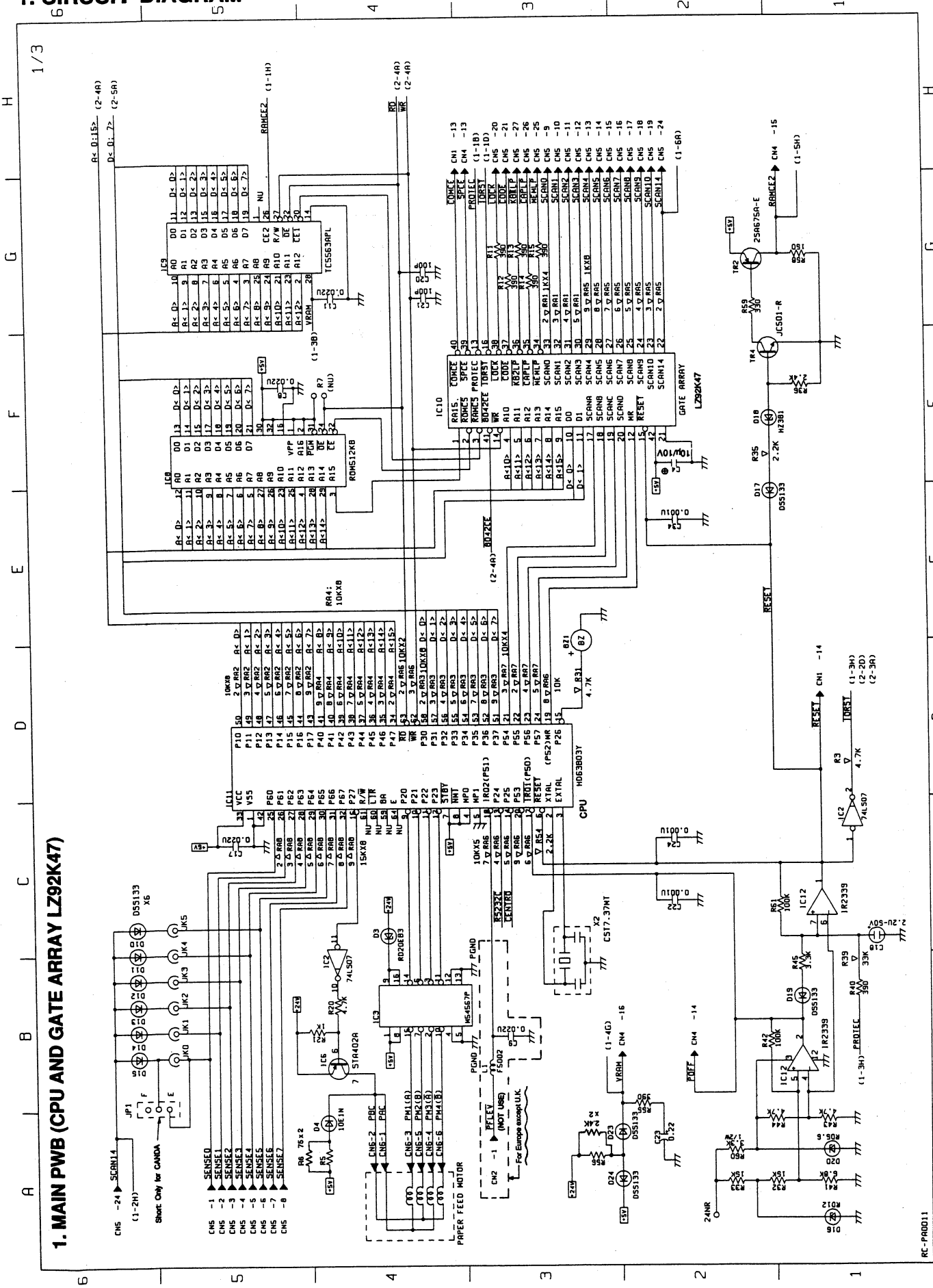
   CODE + KB-II + M, M, M

2) Description

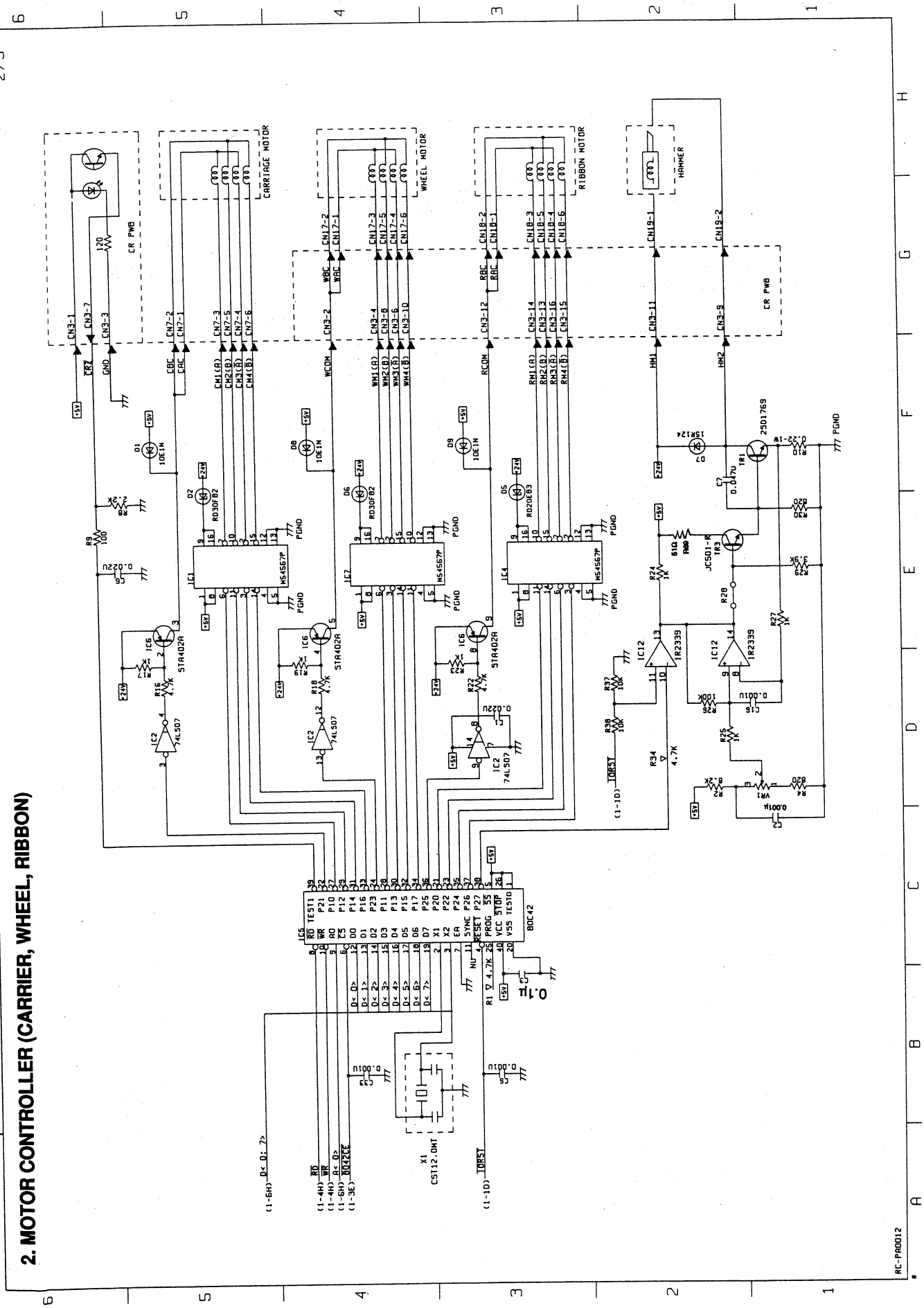
   Clear the all memory data, and set the starting mode data. Start to work with Power OFF/ON.

IV CIRCUIT DIAGRAM

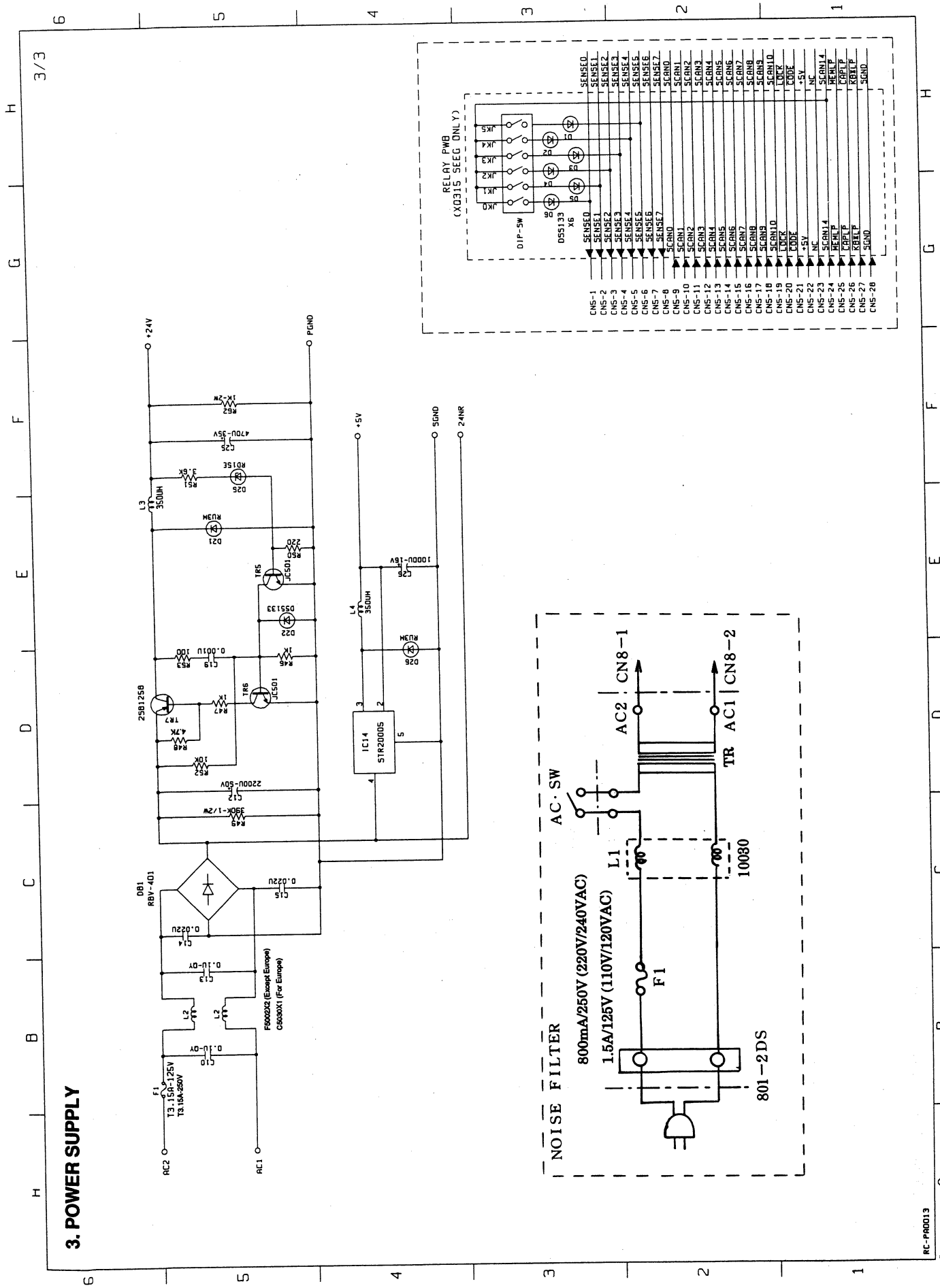
1. CIRCUIT DIAGRAM



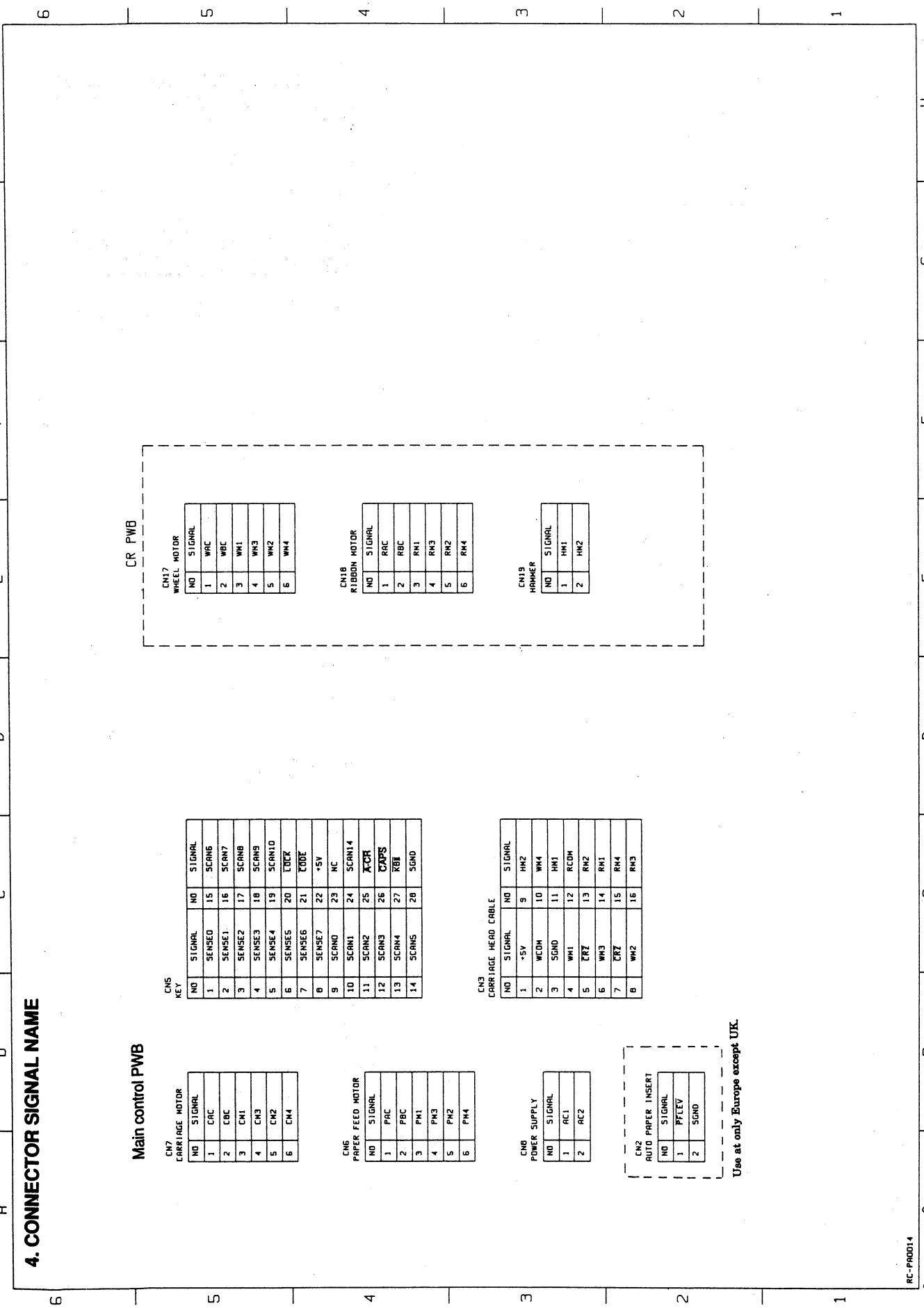
2. MOTOR CONTROLLER (CARRIER, WHEEL, RIBBON)



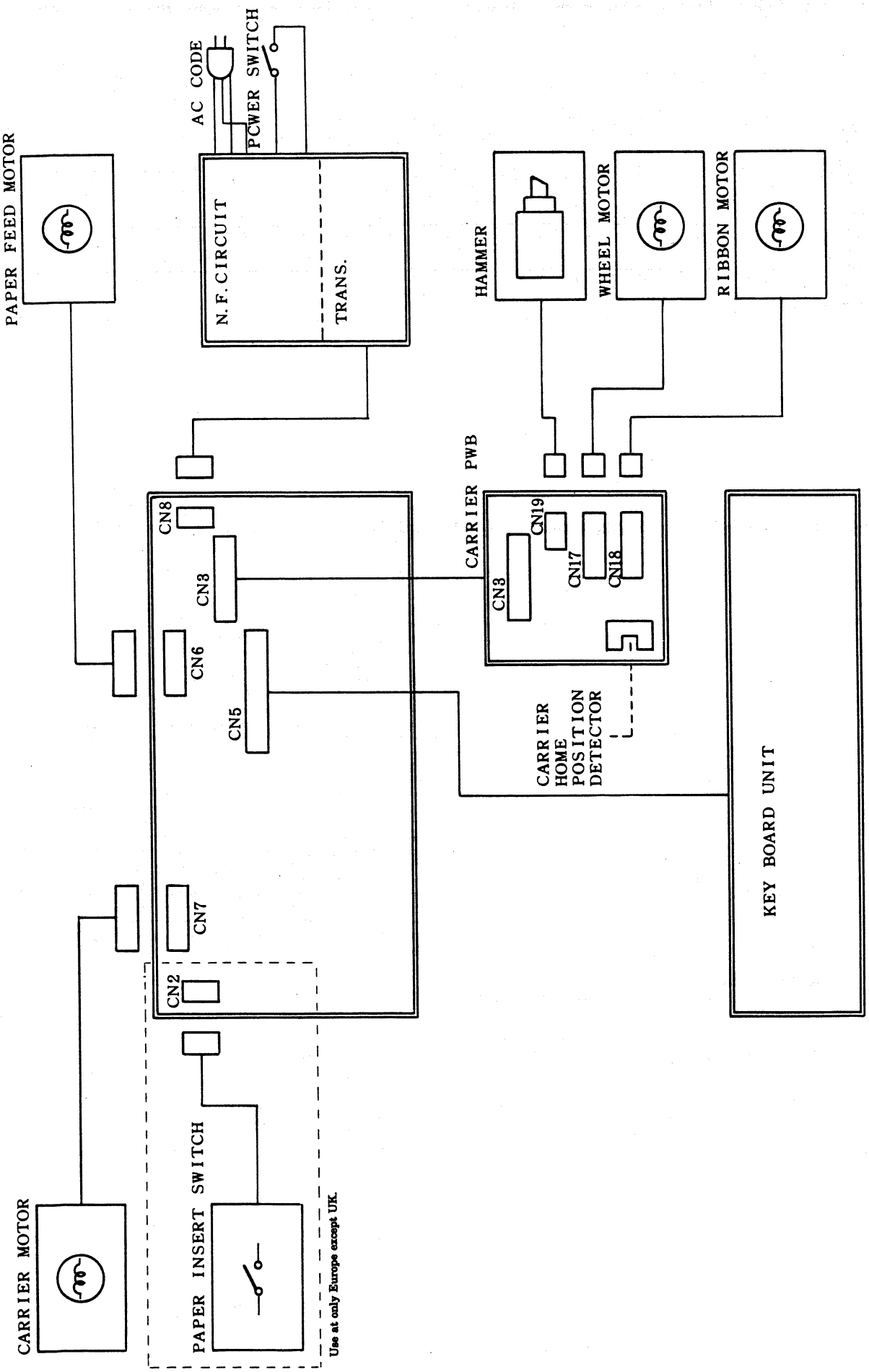
3. POWER SUPPLY



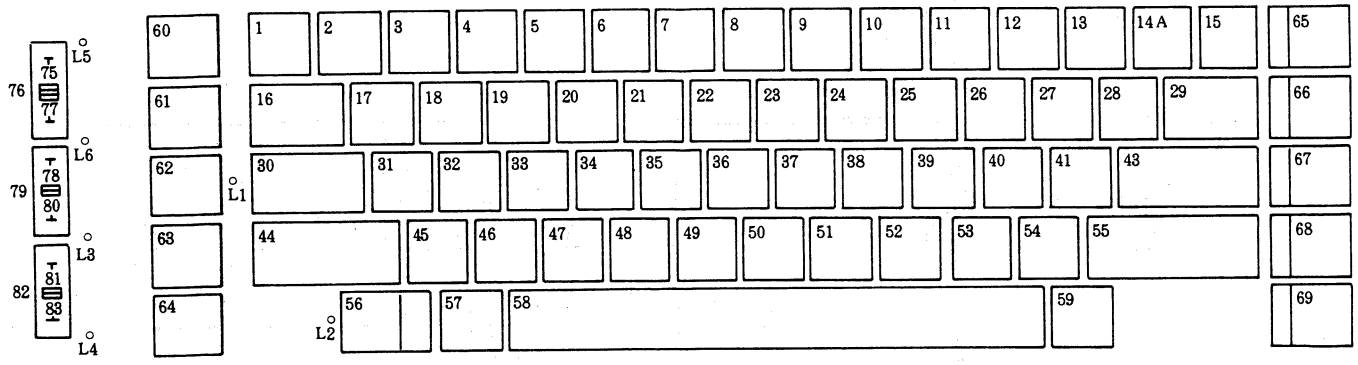
4. CONNECTOR SIGNAL NAME



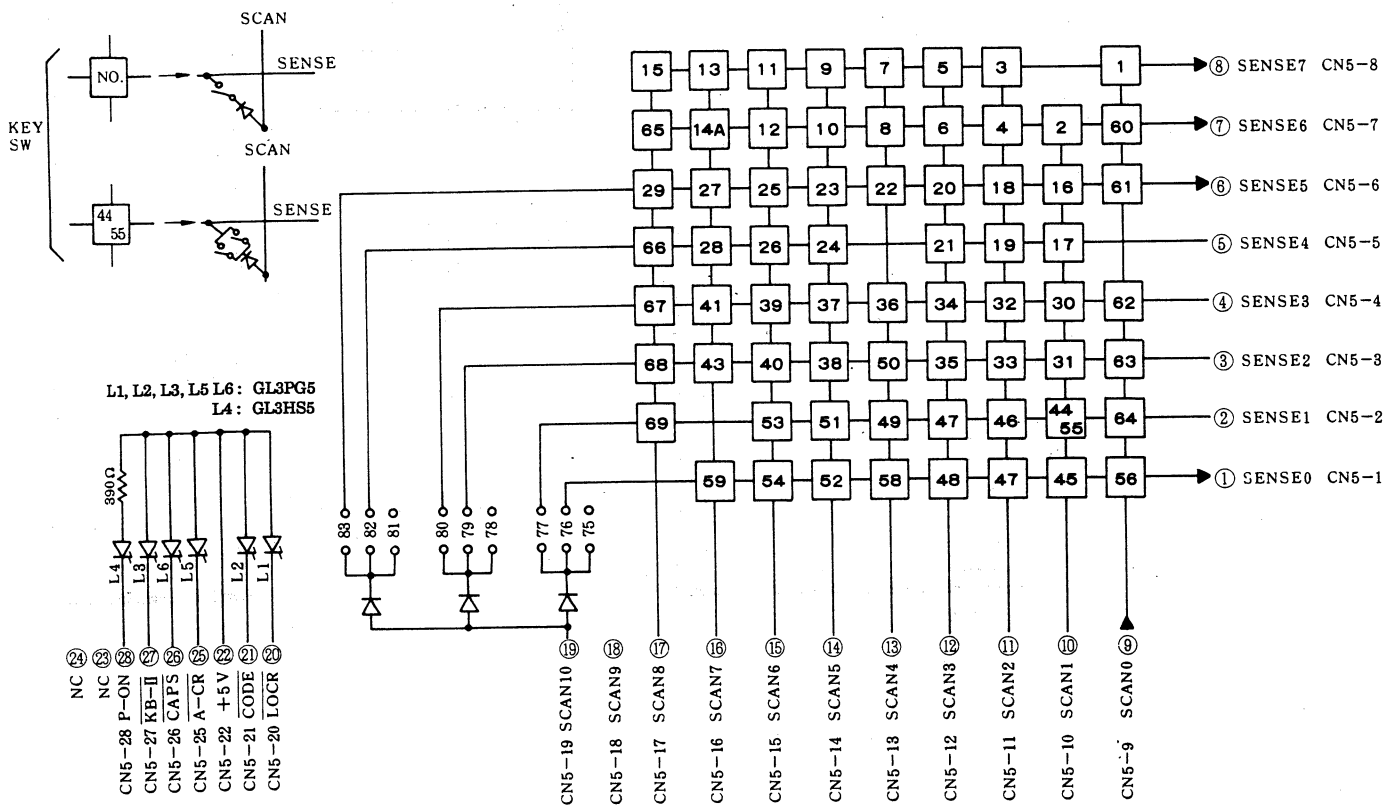
5. WIRING DIAGRAM



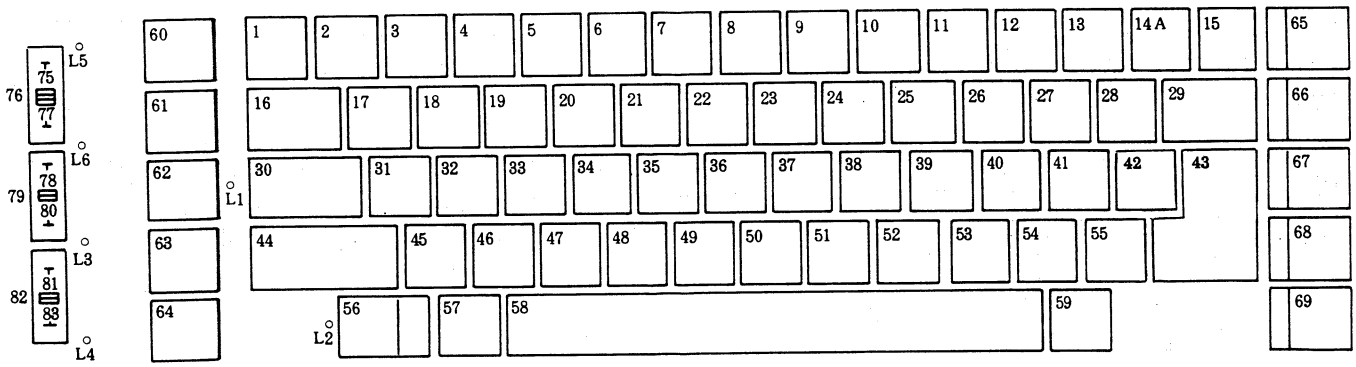
6-1. KEY LOCATIONS 47 KEY [FOR keyboard unit TYPE-A·D] Ref. Parts Guide destination table.



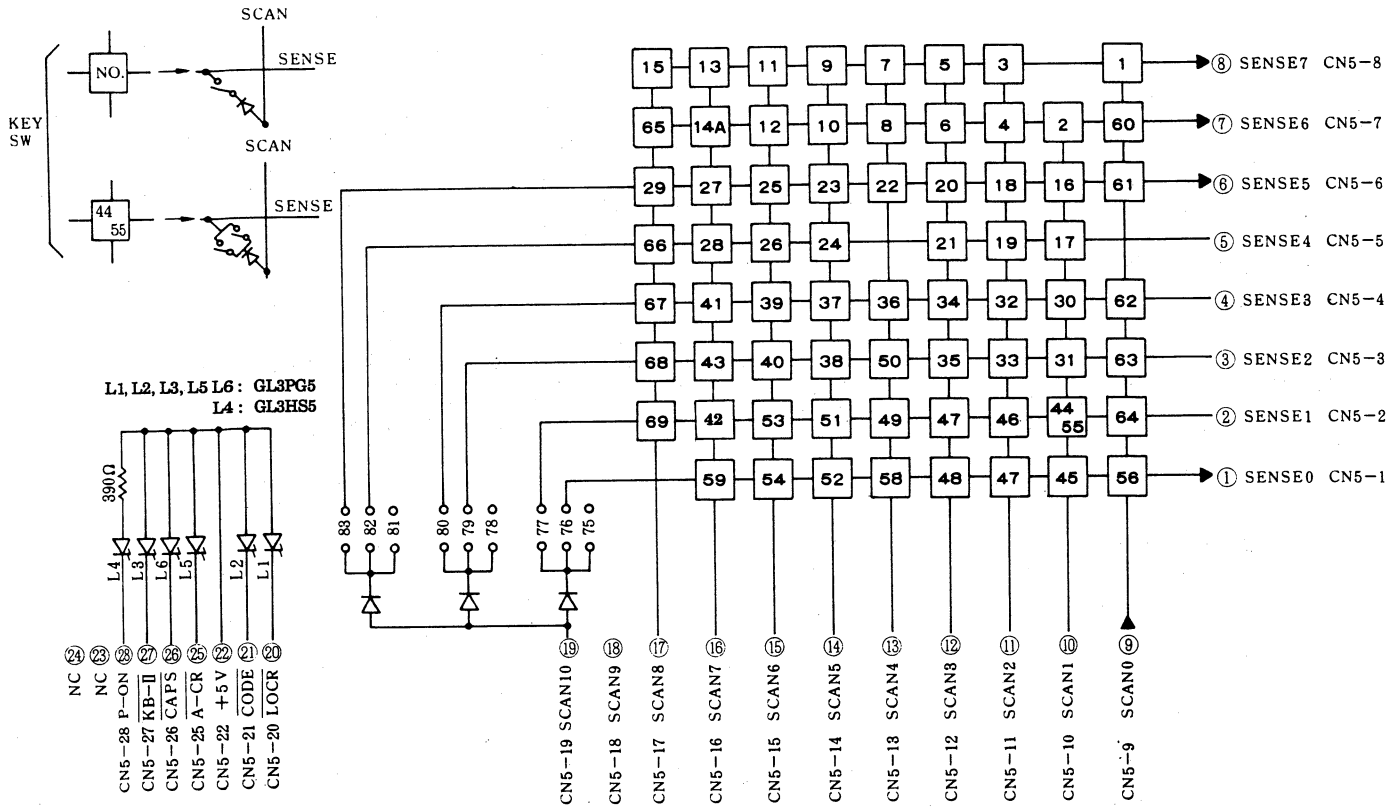
7-1. KEYBOARD 47 KEY [For keyboard unit TYPE-A·D] Ref. Parts Guide destination table.



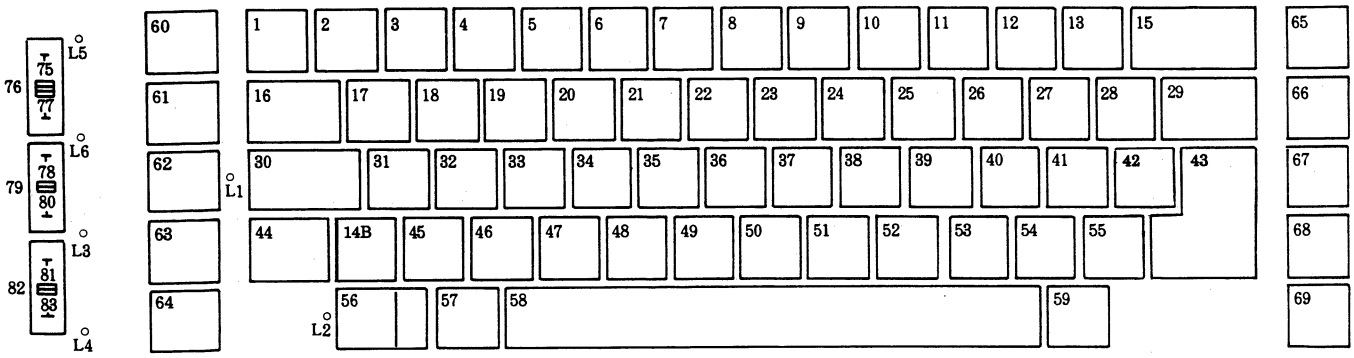
6-2. KEY LOCATIONS 48 KEY [For keyboard unit TYPE-C·G·H] Ref. Parts Guide destination table.



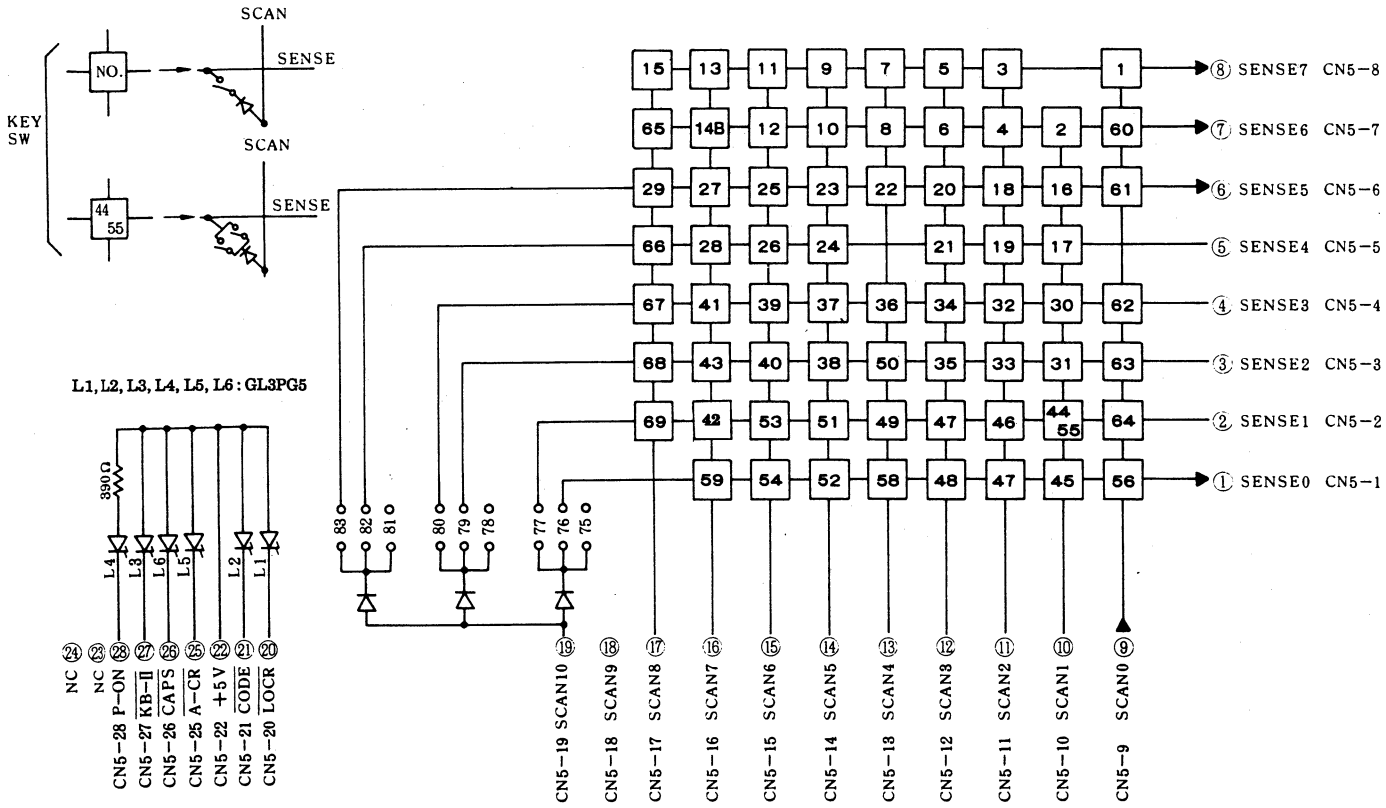
7-2. KEYBOARD 48 KEY [For keyboard unit TYPE-C·G·H] Ref. Parts Guide destination table.



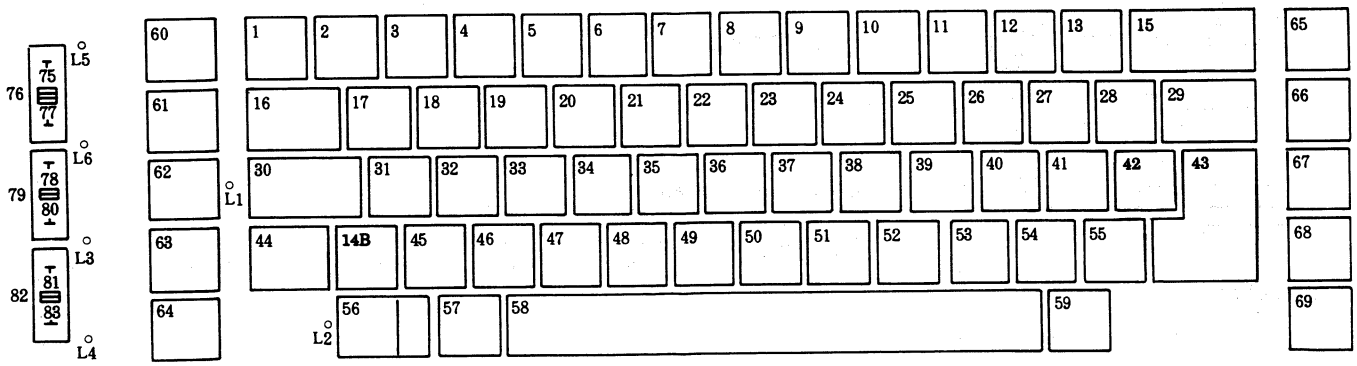
6-3. KEY LOCATIONS 48 KEY [For keyboard unit TYPE-B·E] Ref. Parts Guide destination table.



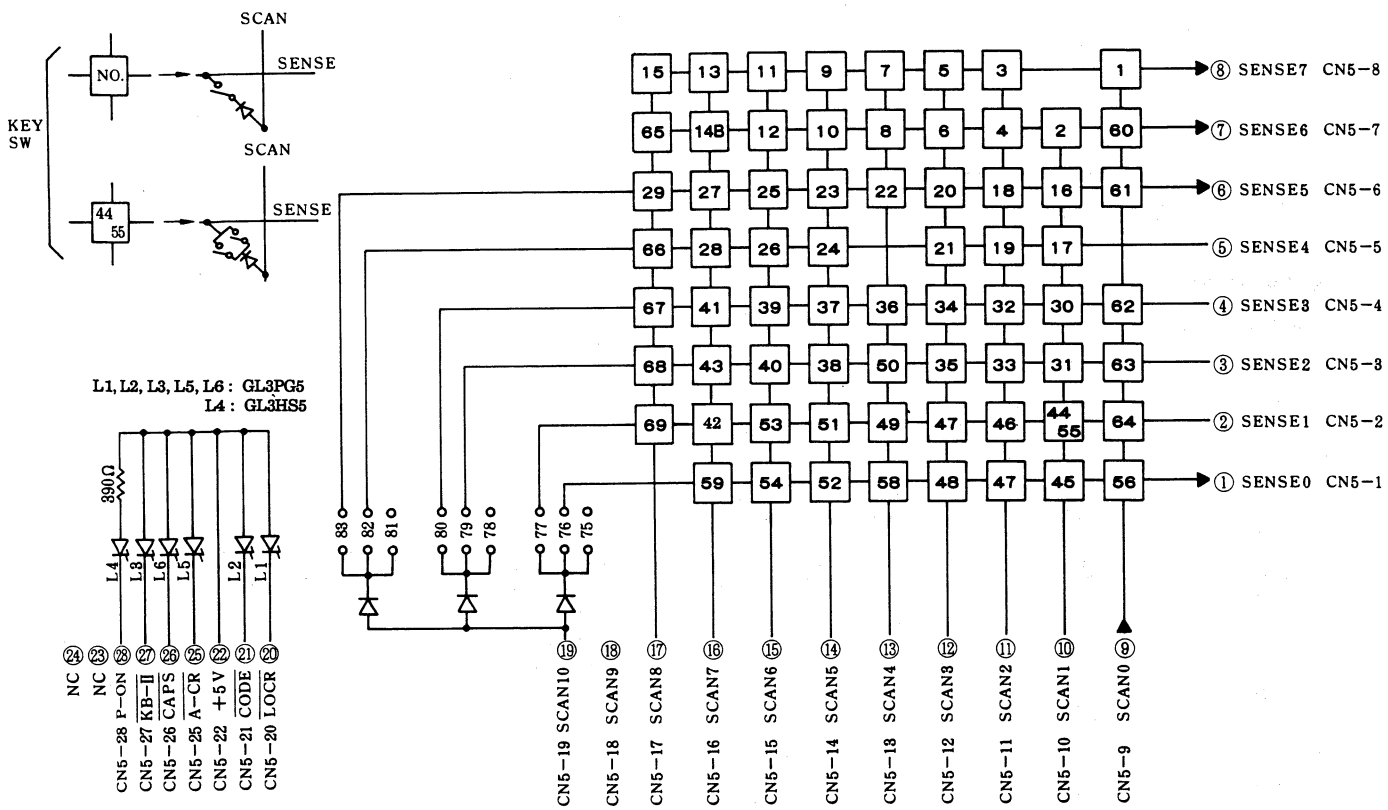
7-3. KEYBOARD 48 KEY [For keyboard unit TYPE-B·E] Ref. Parts Guide destination table.



6-4. KEY LOCATIONS 48 KEY [For keyboard unit TYPE-F] Ref. Parts Guide destination table.

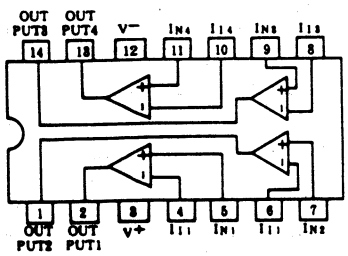


7-4. KEYBOARD 48 KEY [For keyboard unit TYPE-F] Ref. Parts Guide destination table.

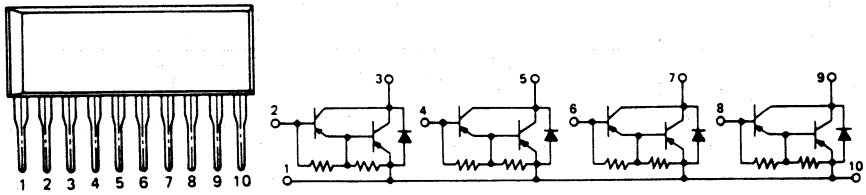


10. PIN CONFIGURATION OF IC

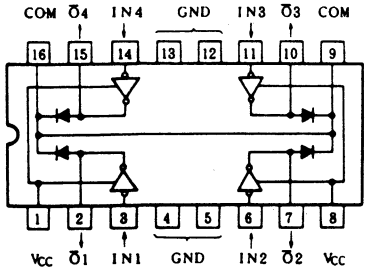
VHIIR2339//-1



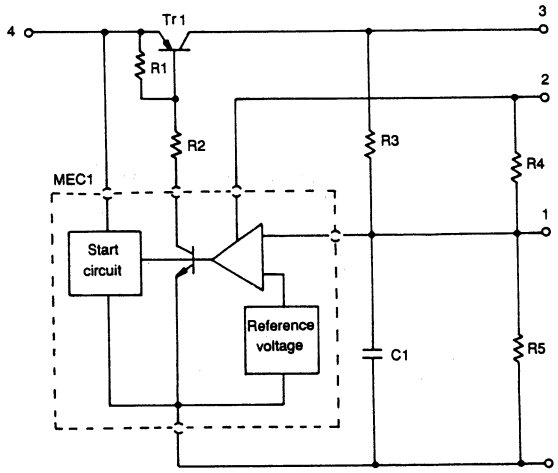
VHISTA402A/-1



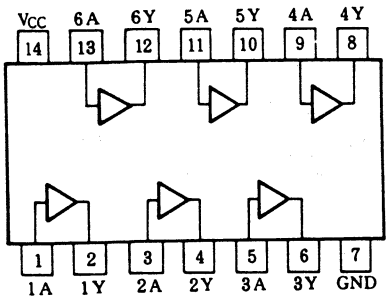
VHIM54567//-1



VHISTR20005-1

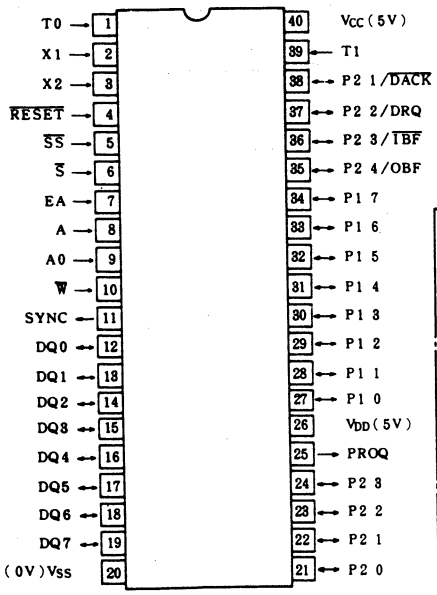


VHISN74LS07-1

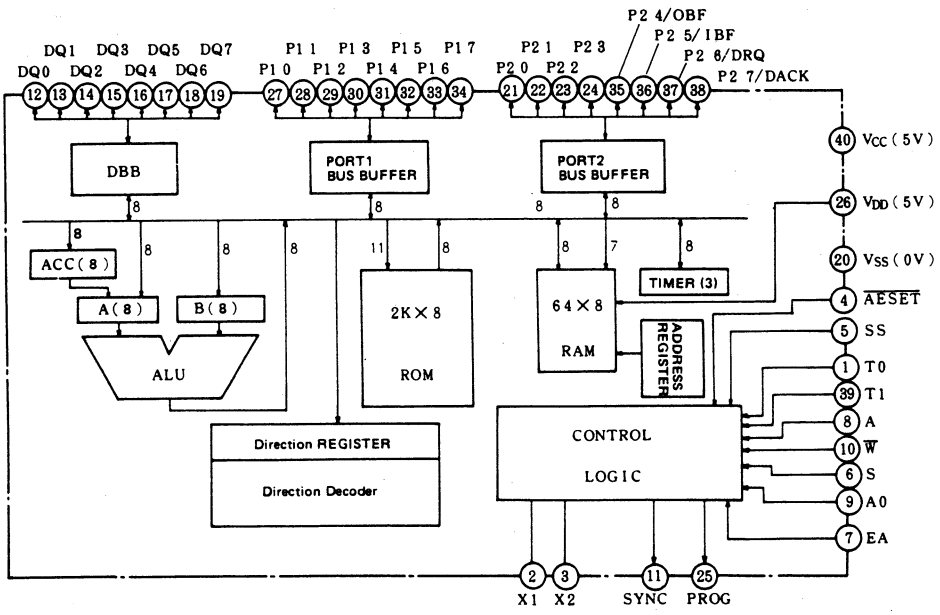


VHI5L8042-XXX

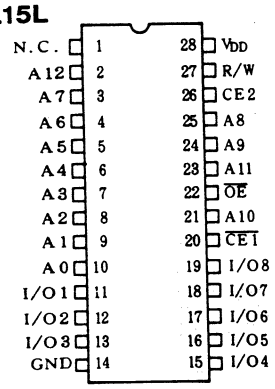
Pin configuration



Block diagram

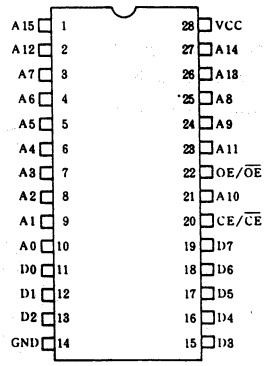


VHITC5563L15L

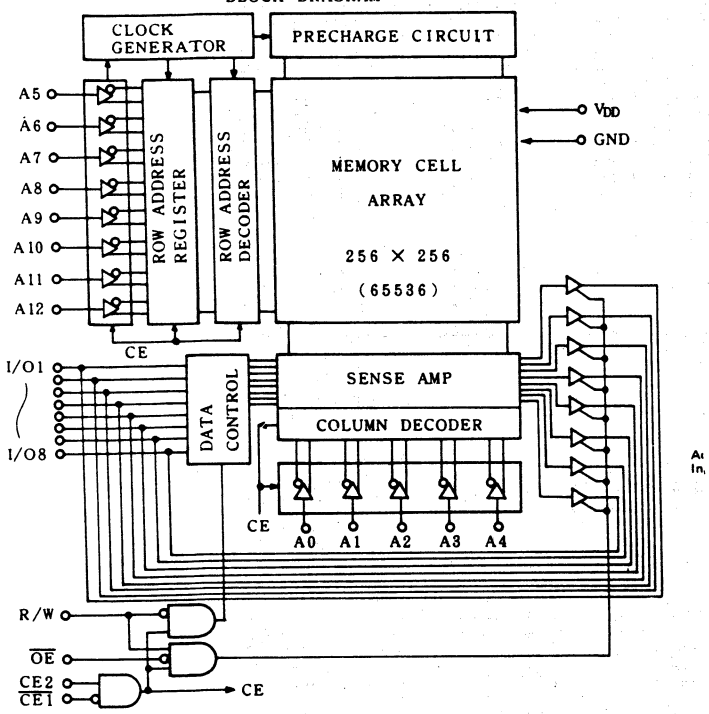


VHILH531423-1

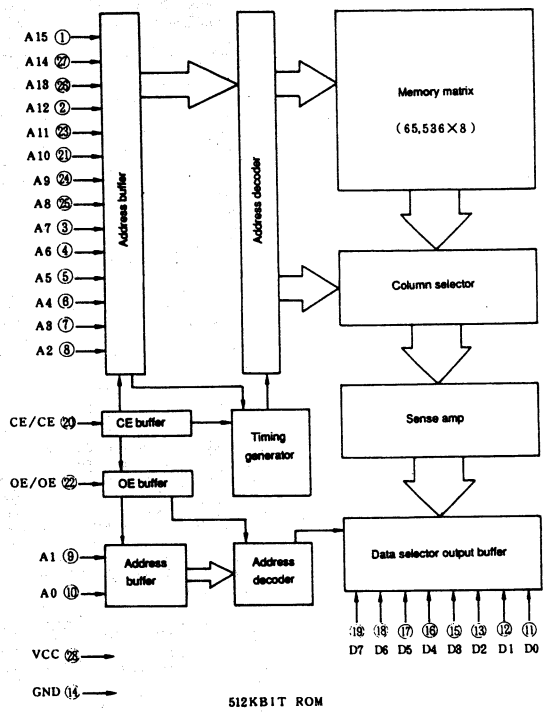
Terminal wiring



BLOCK DRAGRAM

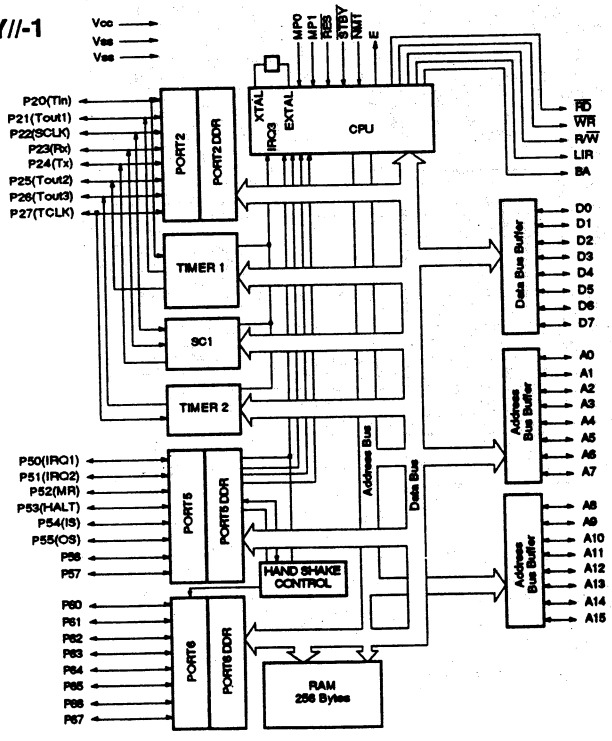


Block Diagram

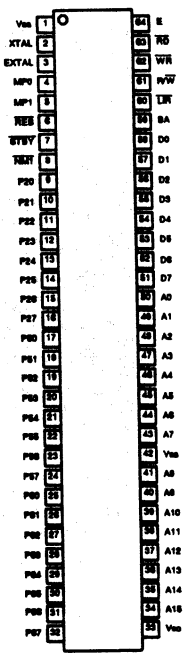


512KBIT ROM

VHI63B03Y//-1

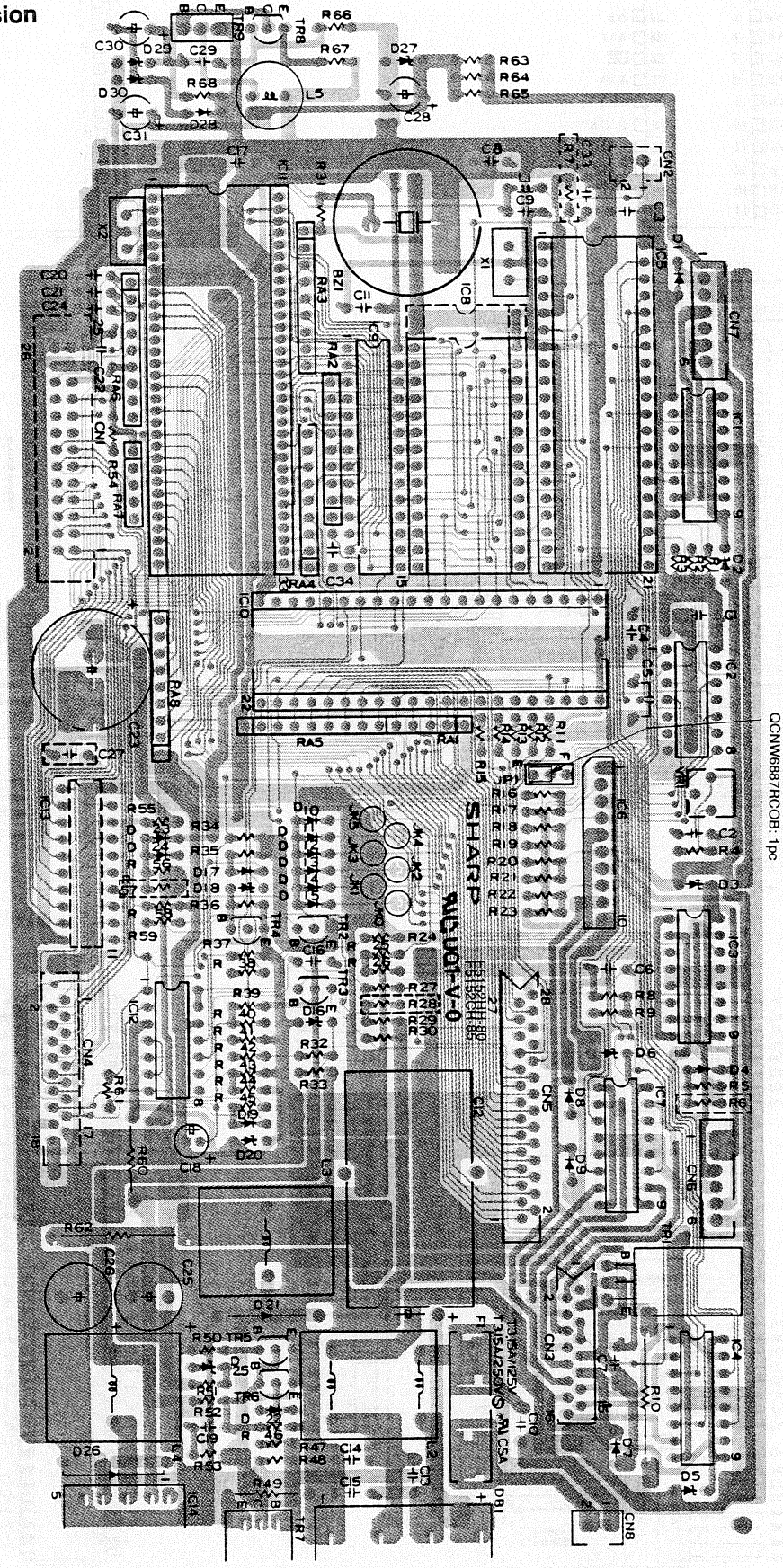


Block Diagram

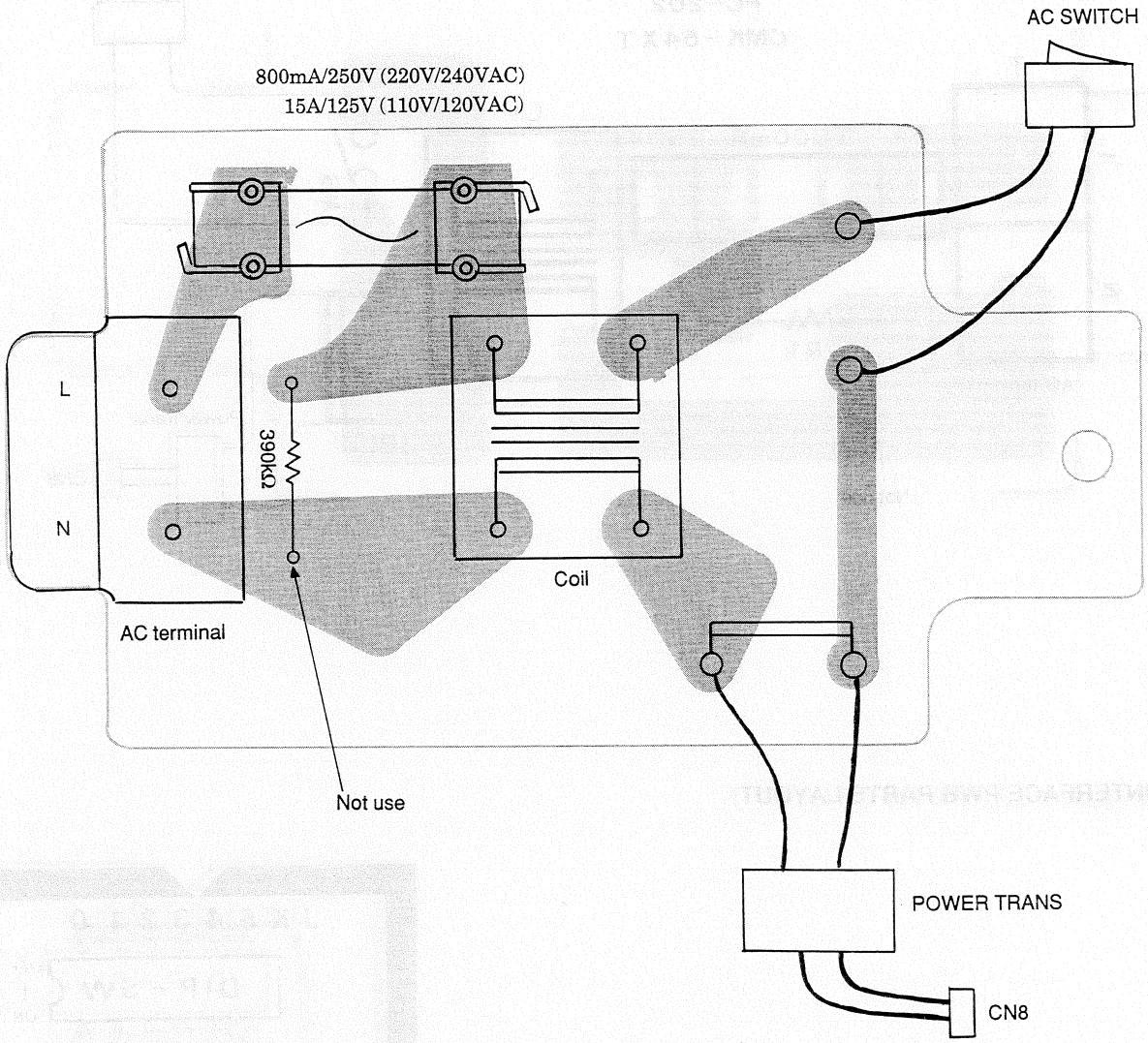


2. PWB LAYOUT

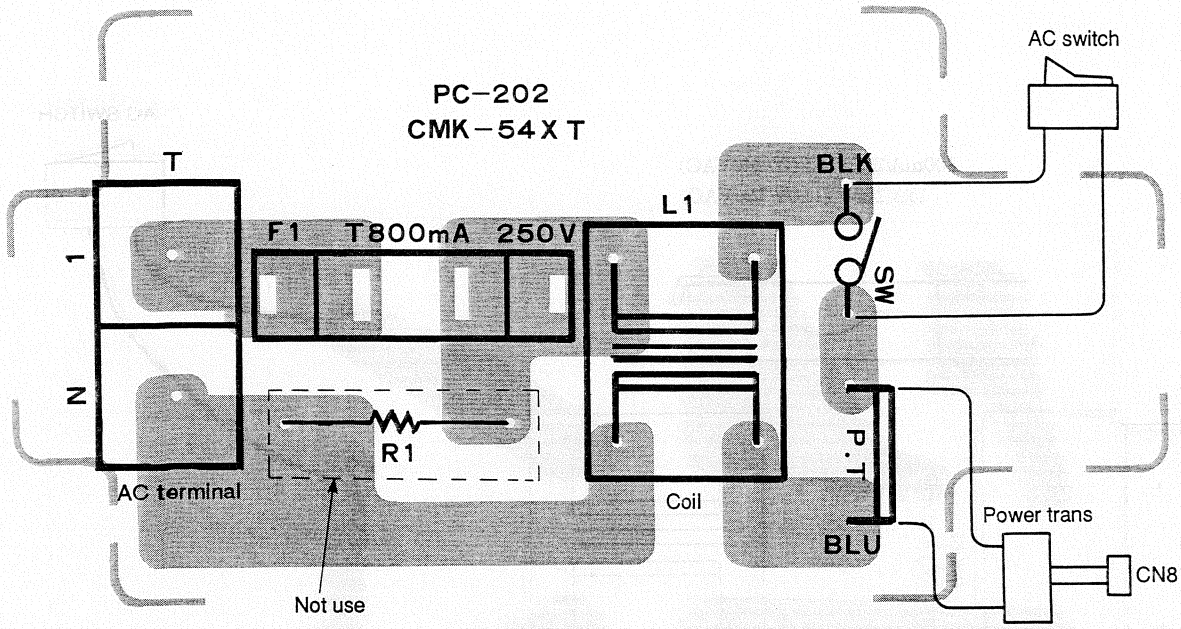
2-1-1. MAIN PWB LAYOUT
F5152CH-85 Version
F5152HH-80 Version



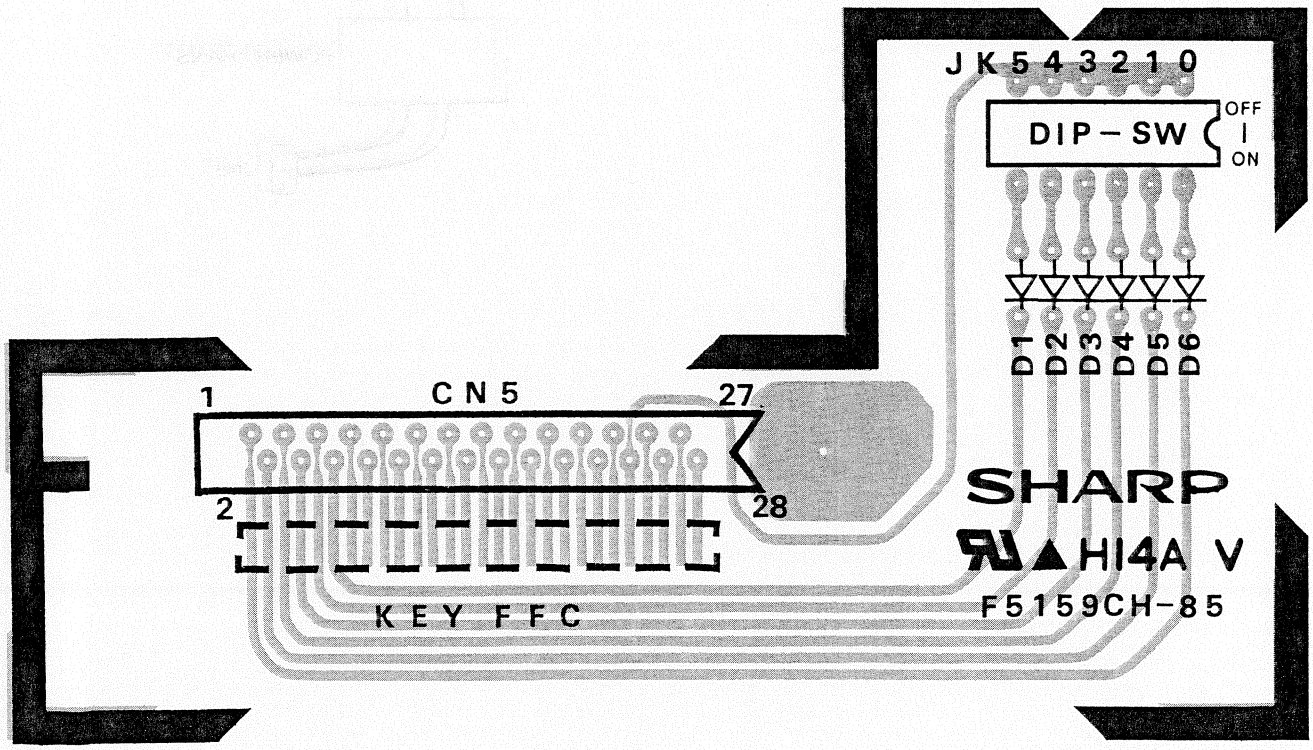
2-2-1. NOISE FILTER PWB PARTS LAYOUT



2-2-2. NOISE FILTER PWB PARTS LAYOUT



2-3-1. INTERFACE PWB PARTS LAYOUT



SHARP

PARTS GUIDE

CONTENTS

1 Housing section
2 Printer main frame
3 Carrier assembly
4 Unit, wheel motor fixing plate
5 Packing material & Accessories
6 Unit, Main control PWB Type-A, B (Ref. destination table)
7 Unit, Main control PWB Type-C, D (Ref. destination table)
8 Unit, power supply Type-A, B, D, E (Ref. destination table)
9 Unit, power supply Type-F, G (Ref. destination table)
10 Unit, interface PWB (For Europe except U. Kingdom)
11 Unit, carrier PWB
12 Unit, Keyboard
51 Keyboard

■ Index

■ Key top: Type-A
■ Key top: Type-C
■ Key top: Type-D
■ Key top: Type-B, E
■ Key top: Type-F
■ Key top: Type-G, H

DEFINITION

The definition of each Rank is as follows and also noted in the list.

A : Parts necessary to be stocked as High usage parts.
B : Parts necessary to be stocked as Standard usage parts.
C : Low usage parts.
D : Parts necessary for refurbish.
E : Unit parts recommended to be stocked for efficient after sales service.
Please note that the lead time for the said parts may be longer than normal parts.
S : Consumable parts.

Please note that the following parts used in Copier under the same description are classified into A or B Rank depending upon the place used.

Example : Gear made of Metal, Sprocket, Bearing, Belt made of Rubber, Spring clutch mechanism.
A Rank : The parts which may be with the revolution or loading.
B Rank : Parts similar to A Rank parts, but are not included in Rank A.

Parts marked with " ⚠ " is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

DESTINATION TABLE

NOTE: *1. The number indicates the service manual for the destination that corresponds to the number (E.g.①) on the front and back cover of this manual. As the destination (number) increases, it includes the numbers for old destinations.

*2. See Parts List in reference of part code.

*3. Indicates the type name of the applicable optional print wheel. See page 2 of the service manual for details.

*4. The number indicates the jumper contact number on the control PWB for software setting based on each country's specification. (Silk screen printed. E.g. JK3)

*5. The number indicates the select position ("O" mark . . . . . ON, "–" mark . . . . . OFF) of the selector switches SW1 to SW4 on the interface PWB for software setting based on each country's specification. (Indicated by silk screen printing. E.g. JK3)
The select positions of SW3 and SW4 are changed by inserting a 2-pin short bar into the 3-pin connector terminal, not by slide selector. (Change of select position not needed depending on destinations.)

*1		*2		*2	*2	*2	*2	*2	*3		*4						*5					
NO.	DESTINATION	CODE		AC CORD	INST. BOOK	CONTROL PWB CPU	P.S. UNIT	KEY UNIT	PRINT WHEEL		JUMPER CONTACT NUMBER (U.K. and Except Europe)						INTERFACE PWB SETTING (For Europe Except U.K.)					
									OPTION WHEEL	IN SAME PACKAGE PRINT WHEEL	JK0	JK1	JK2	JK3	JK4	JK5	JK0	JK1	JK2	JK3	JK4	JK5
1	U.S.A.	A		Type-A	Type-A	Type-A	Type-B	Type-A	Type-E	ZX-177E	–	–	–	–	–	–	–	–	–	–	–	–
2	Sri Lanka	EA	HAB	G	D	A	D	D	E	ZX-176E	–	–	–	–	–	–	–	–	–	–	–	–
3	Philippines	EA	HAF	F	D	A	D	D	E	ZX-097E	–	–	–	–	–	–	–	–	–	–	–	–
4	Hong Kong	EA	HAH	H	D	A	D	D	E	ZX-046E	–	–	–	–	–	–	–	–	–	–	–	–
5	Indonesia	EA	HAI	B	D	A	D	D	E	ZX-097E	–	–	–	–	–	O	–	–	–	–	–	–
6	Barbados, West Indies	EA	HAJ	F	D	A	B	D	E	ZX-097E	–	–	–	–	–	–	–	–	–	–	–	–
① 7	Kuwait-2	EA	HAK	B	D	A	E	D	E	ZX-097E	–	–	–	–	–	–	–	–	–	–	–	–
8	Malaysia	EA	HAM	E	D	A	E	D	E	ZX-97E	–	–	–	–	–	–	–	–	–	–	–	–
9	Nigeria	EA	HAN	E	D	A	D	D	E	ZX-052E	–	–	–	–	–	–	–	–	–	–	–	–
10	Singapore	EA	HAS	E	D	A	E	D	E	ZX-176E	–	–	–	–	–	–	–	–	–	–	–	–
11	Taiwan	ET		F	D	A	A	D	E	ZX-176E	–	–	–	–	–	–	–	–	–	–	–	–
12	Canada	M		A	C	A	B	C	E	ZX-176E	–	O	–	–	–	–	–	–	–	–	–	–
13	Australia	Q		C	D	A	E	D	E	ZX-176E	–	–	–	–	–	–	–	–	–	–	–	–
14	Sauth-Africa	EJ		G	D	A	D	F	A	ZX-176A	O	O	–	–	O	–	–	–	–	–	–	–
15	Bahrain	EU	HUB	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
16	Egipt	EU	HUE	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
17	Greece	EU	HUG	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
② 18	Pakistan-Lebanon	EU	HUR	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
19	Sudan	EU	HUS	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
20	Jordan	EU	HUY	B	F	A	D	G	F	ZX-176F	–	–	–	–	O	–	–	–	–	–	–	–
21	Austria	G1		B	B	B	D	B	F	ZX-046F	–	–	–	–	–	–	–	O	O	O	–	O
22	Germany	G3		D	E	C	F	E	F	ZX-046F	–	–	–	–	–	–	–	O	O	O	–	O
23	U.K	U		K	G	D	G	H	F	ZX-046F	–	–	–	–	O	–	–	–	–	–	–	–

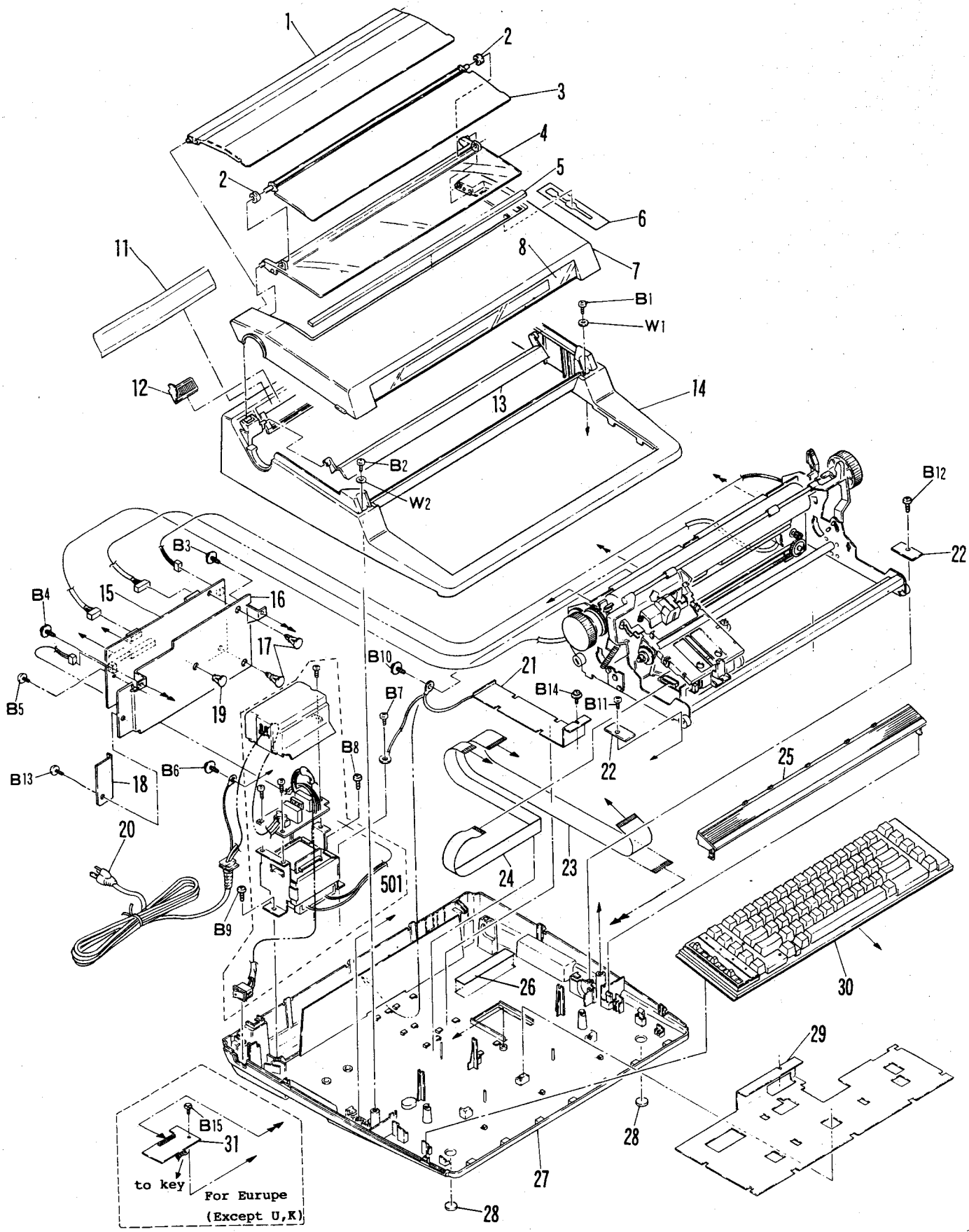
*1 NO.	DESTINATION	*2 CODE	*2 AC CORD	*2 INST. BOOK	*2 CONTROL PWB CPU	*2 P.S. UNIT	*2 KEY UNIT	*3 PRINT WHEEL: OPTION WHEEL	*3 PRINT WHEEL: IN SAME PACKAGE PRINT WHEEL	*4 JUMPER CONTACT NUMBER (U.K. and Except Europe): JK0	JK1	JK2	JK3	JK4	JK5	*5 INTERFACE PWB SETTING (For Europe Except U.K.): JK0	JK1	JK2	JK3	JK4	JK5

[redacted]
XQ-315U

1 Housing section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
B01	XUPSD4 0P25000	AA	N	C	Screw (4×25)
B02	XUPSD4 0P25000	AA	N	C	Screw (4×25)
B03	XBPSD3 0P06KS0	AA		C	Screw (3×6KS)
B04	XBPSD3 0P06KS0	AA		C	Screw (3×6KS)
B05	XBPSD3 0P06KS0	AA		C	Screw (3×6KS)
B06	XBPBZ4 0P08K00	AA		C	Screw (4×8K)(A,M,Q,EA,ET,EJ,U) (Ref.destination table CODE)
B07	XUPSD4 0P12000	AA		C	Screw (4×12)
B08	XUPSD4 0P12000	AA		C	Screw (4×12)
B09	XUPSD4 0P12000	AA		C	Screw (4×12)
B10	XBPSD3 0P06KS0	AA		C	Screw (3×6KS)
B11	XUPSD4 0P12000	AA		C	Screw (4×12)
B12	XUPSD4 0P12000	AA		C	Screw (4×12)
B13	XBPSD3 0P10KS0	AB		C	Screw (3×10KS)
B14	LX-BZ3 006SC0M	AA		C	Screw
B15	XCPSD3 0P08000	AA		C	Screw (3×8)(G1,G3) (Ref.destination table CODE)
W01	XWHSD4 0-08100	AA		C	Washer
W02	XWHSD4 0-08100	AA		C	Washer
1	GiTAT5 058CHZC	AQ	N	D	Support,paper (USA only)
	GiTAT5 057CHZB	AQ	N	D	Support,paper (Other countries)
2	PGUMM5 025BCZZ	AC		C	Rubber (G1,G3) (Ref.destination table CODE)
3	LPLTP5 093CHZZ	AK	N	C	Autireflector (G1,G3) (Ref.destination table CODE)
4	GCOVZ5 097CHZZ	AN	N	D	Acoustic hood (G1,G3) (Ref.destination table CODE)
5	PCUSS5 033CHZZ	AC	N	C	Cushion A,cover
6	PCUSS5 029BCZZ	AC		C	Cushion,lever
7	GCABC5 098CHZC	AT	N	D	Housing,Top (USA only)
	GCABC5 098CHZD	AW	N	D	Housing,Top (Other countries)
8	HiNDP5 021CHZZ	AS	N	D	Indicator
11	PSPF-5 051BCZZ	AA		C	Sheet,protect
12	PGiDM5 053BCZZ	AD		C	Guide,paper (USA only)
	PGiDM5 049BCZZ	AD		C	Guide,paper (Other countries)
13	LPLTP5 092CHZZ	AL	N	C	Erase table (USA only)
	LPLTP5 091CHZZ	AL	N	C	Erase table (Other countries)
14	GCABA5 094CHZB	AX		D	Housing,upper (USA only)
	GCABA5 093CHZB	AX	N	D	Housing,upper (Other countries)
15	CPWBF5 152CH01	CB	N	E	Unit,Main control PWB (Type-A) (Ref.block 6)
	CPWBF5 152CH03	CB	N	E	Unit,Main control PWB (Type-B) (Ref.block 6)
	CPWBF5 152HH03	CC	N	E	Unit,Main control PWB (Type-C) (Ref.block 7)
	CPWBF5 152HH01	CC	N	E	Unit,Main control PWB (Type-D) (Ref.block 7)
16	LPLTM5 100CHZZ	AQ	N	C	Chassis,PWB
17	PSPAZ2 114SCZZ	AB		C	Spacer (KGLS-5RT)
18	LANGK5 124CHZZ	AG	N	C	Angle,regulator
19	PSPAN5 064BCZZ	AB	N	C	Spacer,card
⚠ 20	QACCD8 411QCN2	AQ		B	AC cord (Type-A) (Ref.destination table)
⚠	QACCE1 422QCN5	AN	N	B	AC cord (Type-B) (Ref.destination table)
⚠	QACCL7 422QCZZ	AT		B	AC cord (Type-C) (Ref.destination table)
⚠	QACCE1 422JHN5	AU	N	B	AC cord (Type-D) (Ref.destination table)
⚠	QACCB7 120QCZZ	AX		B	AC cord (Type-E) (Ref.destination table)
⚠	QACCJ3 416QCN1	AM		B	AC cord (Type-F) (Ref.destination table)
⚠	QACCZ7 123QCZZ	AW		B	AC cord (Type-G) (Ref.destination table)
⚠	QACCZ7 122QCZZ	AR		B	AC cord (Type-H) (Ref.destination table)
⚠	QACCB7 120JHN3	AU	N	B	AC cord (Type-K) (Ref.destination table)
21	PSLDC5 013CHZZ	AG	N	C	Shield,cable
22	LPLTM5 079BCZZ	AB		C	Plate
23	QCNW-5 220BCZZ	AL	N	C	Cable,key
24	QCNW-5 219BCZZ	AK	N	C	Cable,carrier
25	PCOVP5 063CHZZ	AN	N	D	Cover,display panel (USA only)
	PCOVP5 063CHZA	AN	N	D	Cover,display panel (Other countries)
26	TCAUH5 051HHZZ	AA	N	B	Label, caution (For Europe)
	TCAUH5 051BCZZ	AA		C	Label, caution (Other countries)
27	GCABB5 106CHZZ	BB	N	D	Housing,lower (USA only)
	GCABB5 106CHZA	BB	N	D	Housing,lower (Other countries)
28	PGUMM5 035CHZZ	AA	N	C	Rubber
29	PSLDC5 012CHZZ	AP	N	C	Shield,key
30	————				Unit,keyboard (Ref.block 5)
31	DUNTK6 557CHZZ	BU	N	E	Unit,interface PWB (G1) (Ref.block 10)
	DUNTK6 557HHZZ	——	N	E	Unit,interface PWB (G3) (Ref.block 10)
501	DUNTK6 577CHZZ	BU	N	E	Unit,power supply(110V)(Type-A) (Ref.block 8)
	DUNTK6 498CHZZ	BX	N	E	Unit,power supply(120V)(Type-B) (Ref.block 8)
	DUNTK6 537CHZZ	BH	N	E	Unit,power supply(220V)(Type-D) (Ref.block 8)
	DUNTK6 536CHZZ	BQ	N	E	Unit,power supply(240V)(Type-E) (Ref.block 8)
	DUNTK6 537HHZZ	BH	N	E	Unit,power supply(220V)(Type-F) (Ref.block 9)
	DUNTK6 536HHZZ	BH	N	E	Unit,power supply(240V)(Type-G) (Ref.block 9)

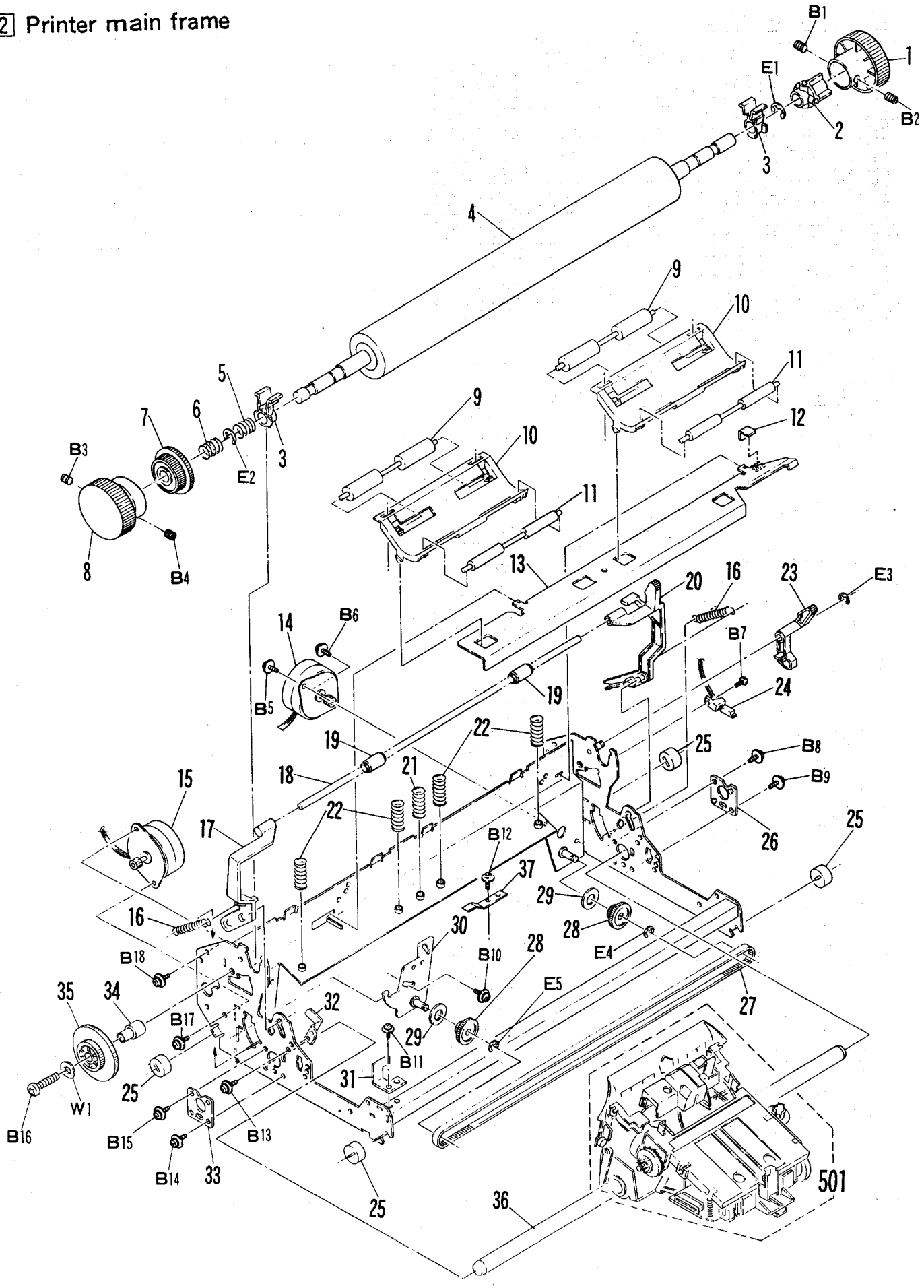
1 Housing section



[2] Printer main frame

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
B01	XXXSP40L08000	AB		C	Screw (4×8)
B02	XXXSP40L08000	AB		C	Screw (4×8)
B03	XXXSP40L08000	AB		C	Screw (4×8)
B04	XXXSP40L08000	AB		C	Screw (4×8)
B05	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B06	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B07	XBPSD20P06000	AA		C	Screw (2×6)(G1,G3) (Ref.destination table CODE)
B08	XBPSD40P08KS0	AA		C	Screw (4×8KS)
B09	XBPSD40P08KS0	AA		C	Screw (4×8KS)
B10	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B11	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B12	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B13	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B14	XBPSD40P08KS0	AA		C	Screw (4×8KS)
B15	XBPSD40P08KS0	AA		C	Screw (4×8KS)
B16	XBPSD50P25000	AA		C	Screw (5×25)
B17	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B18	XBPSD30P06KS0	AA		C	Screw (3×6KS)
E01	XRESJ60−08000	AA		C	E type ring
E02	XRESJ60−08000	AA		C	E type ring
E03	XRESJ40−06000	AA		C	E type ring
E04	XRESJ40−06000	AA		C	E type ring
E05	XRESJ40−06000	AA		C	E type ring
W01	XWHSD50−08100	AA		C	Washer
1	JKNBZ5065BCZZ	AE		C	Knob R,platen (USA only)
	JKNBZ5059BCZZ	AE		C	Knob R,platen (Other countries)
2	LHLDZ5029BCZZ	AE		C	Sleeve,knob
3	NBRGP5048CHZZ	AD	N	C	Bearing,platen
4	NRŌLR5052BCZZ	BA		C	Roller,platen
5	MSPRK5173BCZZ	AD		C	Spring,spacer
6	MSPRC5108BCZZ	AB		C	Spring,platen gear
7	NGERZ5082BCZZ	AD		C	Gear,platen
8	CKNBZ5066CH01	AN	N	E	Ass'y,platen knob (USA only)
	CKNBZ5060CH01	AN	N	E	Ass'y,platen knob (Other countries)
9	NRŌLR5057CHZZ	AM	N	C	Roller B,paper feed
10	LHLDZ5054CHZZ	AH	N	C	Holder,roller
11	NRŌLR5056CHZZ	AM	N	C	Roller A,paper feed
12	PGUMM5039CHZZ	AC	N	C	Rubber,holder
13	LPLTM5102CHZZ	AQ	N	C	Plate,release
14	RMŌTS5053BCZZ	AV	N	B	Motor,carrier
15	RMŌTZ5043BCZZ	AV		B	Motor,paper feed
16	MSPRD5166CHZZ	AC	N	C	Spring,bail lever
17	MLEVP5088CHZA	AE	N	C	Lever L,paper bail
18	PBARM5014BCZZ	AH		C	Bar,paper bail
19	NRŌLP5049BCZA	AE		C	Roller,paper bail
20	MLEVP5086CHZZ	AF	N	C	Lever R,paper bail (USA only)
	MLEVP5087CHZZ	AF	N	C	Lever R,paper bail (Other countries)
21	MSPRT5179CHZZ	AC	N	C	Spring,release
22	MSPRT5178CHZZ	AB	N	C	Spring,holder
23	MLEVP5084CHZZ	AD	N	C	Lever,release (USA only)
	MLEVP5085CHZZ	AD	N	C	Lever,release (Other countries)
24	CCNW−5223BC01	AG	N	B	Ass'y,insert switch (G1,G3) (Ref.destination table CODE)
25	PGUMM5036BCZZ	AB		C	Rubber
26	LPLTM5051BCZB	AC		C	Plate R,shaft
27	NBLTT5012BCZZ	AH	N	B	Belt,carrier drive
28	NPLYM5031BCZZ	AB	N	C	Pulley,carrier
29	PSPAZ5065CHZZ	AB	N	C	Spacer,carrier pulley
30	LFRM−5052CHZZ	AH	N	C	Flame,idler pulley
31	PSHT−5015CHZA	AC	N	C	Shutter,carrier
32	LANGA5118CHZZ	AD	N	C	Angle B
33	LPLTM5052BCZB	AC		C	Plate L,shaft
34	NSFTG5084CHZZ	AD	N	C	Boss,idler gear
35	NGERH5081BCZC	AF		C	Gear,idler
36	LRALM5019BCZZ	AP		C	Shaft,slide
37	LSTPZ5031CHZZ	AG	N	C	Stopper,cam
501	CDAiH5032CH02	BR	N	E	Ass'y,carrier (Ref.block [3])

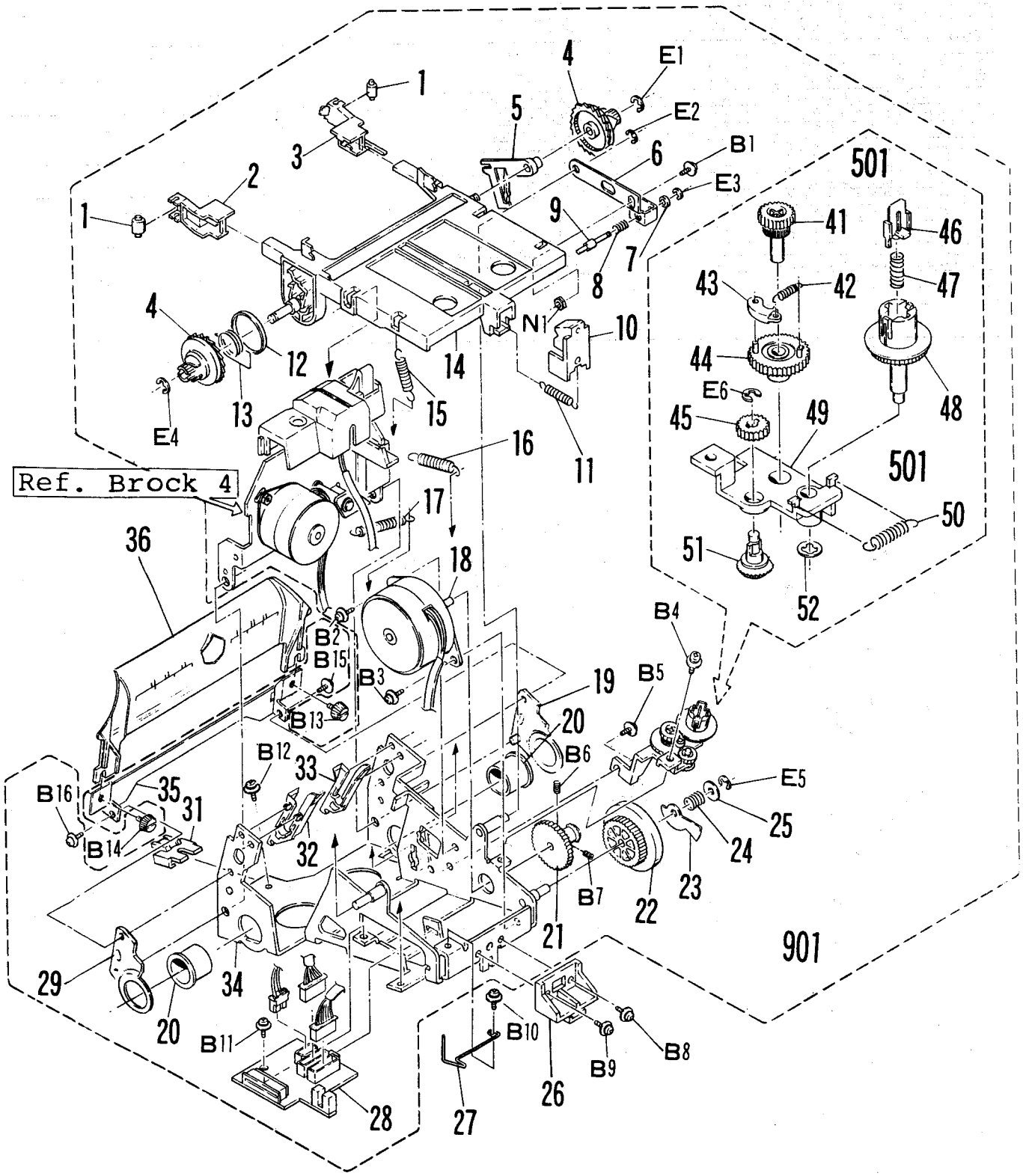
[2] Printer main frame



3 Carrier assembly

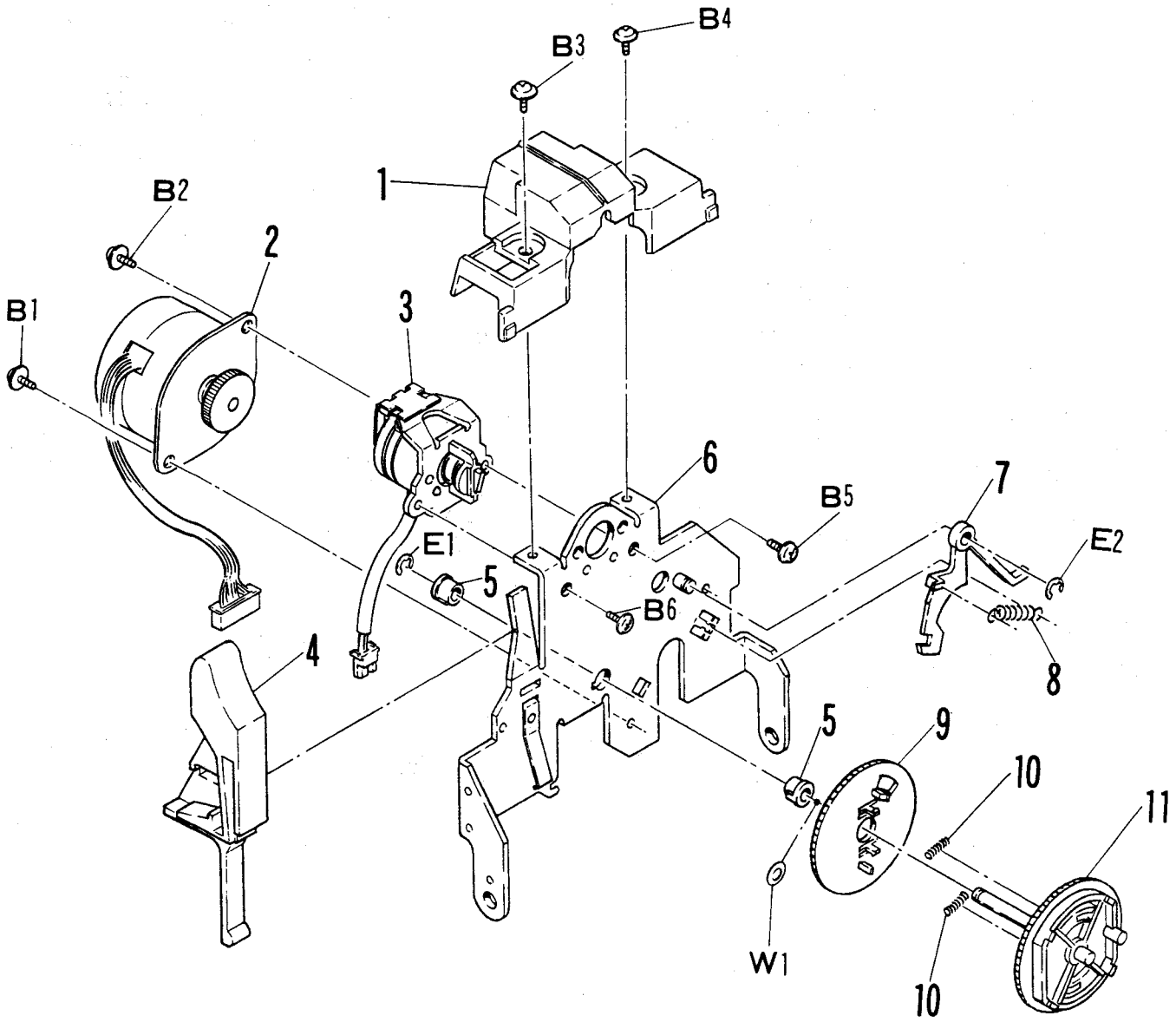
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
B01	XBPSD30P06KS0	AA		C	Screw (3×6KS)
B02	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B03	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B04	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B05	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B06	XXXSP26L04000	AA		C	Screw (2.6×4)
B07	XXXSP26L04000	AA		C	Screw (2.6×4)
B08	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B09	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B10	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B11	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B12	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B13	LX-BZ5090BCZZ	AB		C	Screw
B14	LX-BZ5090BCZZ	AB		C	Screw
B15	XBPSD30W06KS0	AA		C	Screw (3×6KS)
B16	XBPSD30W06KS0	AA		C	Screw (3×6KS)
E01	XRESJ40-06000	AA		C	E type ring
E02	XRESJ30-06000	AB		C	E type ring
E03	XRESJ20-04000	AA		C	E type ring
E04	XRESJ40-06000	AA		C	E type ring
E05	XRESJ20-05000	AA		C	E type ring
E06	XRESJ20-04000	AA		C	E type ring
N01	XNESD30-24000	AA		C	Nut
1	NROLP5045CHZZ	AA	N	C	Roller,guide
2	PGiDM5031BCZZ	AB		C	Guide L,correction tape
3	PGiDM5030BCZA	AB		C	Guide R,correction tape
4	LHLDZ5012BCZZ	AC		C	Holder,correction tape
5	MLEVP5048BCZA	AB		C	Lever,correction tape
6	LANGZ5075BCZZ	AD		C	Angle
7	PCUSG5017CHZZ	AB	N	C	Cushion
8	MSPRC5118BCZZ	AA		C	Spring
9	NSFTZ5058BCZA	AC		C	Shaft
10	PCAPZ5017BCZZ	AB		C	Cap,ribbon pressure
11	MSPRT5094BCZA	AB		C	Spring,ribbon pressure
12	PSPAX5049BCZZ	AA		C	Spacer,reel disk
13	MSPRT5141BCZZ	AA		C	Spring,reel disk
14	LDAiH5022BCZB	AK		C	Base,cartridge holder
15	MSPRP5107BCZZ	AA		C	Spring,cartridge
16	MSPRT5160BCZZ	AB		C	Spring,wheel motor holder
17	MSPRT5163BCZZ	AB		C	Spring,wheel motor side
18	RMOTZ5042BCZZ	AV		B	Motor,ribbon feed
19	LSTYM5021BCZA	AE		C	Stay R,support
20	NBRGZ5036BCZZ	AD		C	Bearing,carrier
21	NGERZ5080BCZZ	AG		C	Gear,motor
22	MCAMP5028CHZZ	AE	N	C	Cam,ribbon
23	MCAMF5023BCZA	AB		C	Plate,cam support
24	MSPRC5099BCZZ	AA		C	Spring
25	NSFTZ5065BCZA	AA		C	Shaft,holder
26	MSLi-5031CHZZ	AC	N	C	Slider
27	HSSN-5016CHZZ	AD	N	C	Indicator
28	CPWBF5143CH02	AS	N	E	Unit,carrier PWB (Ref.block [11])
29	LSTYM5020BCZA	AE		C	Stay L,support
31	LHLDZ5057CHZZ	AE	N	C	Clip,belt
32	PGiDM5019BCZA	AD		C	Guide L,wheel cartridge
33	PGiDM5020BCZA	AD		C	Guide R,wheel cartridge
34	LDAiH5032CHZZ	AW	N	C	Base,carrier
35	LSTYM5013BCZE	AE		C	Stay,paper pressure
36	PGiDM5047BCZZ	AK		C	Card holder
41	NGERZ5076BCZB	AB		C	Gear,ratchet
42	MSPRT5091BCZA	AA		C	Spring,ratchet
43	MLEVP5047BCZA	AB		C	Catch,ratchet
44	NGERH5102CHZZ	AC	N	C	Gear A,ribbon idler
45	NGERH5103CHZZ	AC	N	C	Gear B,ribbon idler
46	PTME-5014BCZB	AB		C	Plate,ribbon take-up
47	MSPRC5090BCZZ	AA		C	Spring,ribbon take-up
48	NSFTP5080CHZZ	AD	N	C	Shaft,ribbon take-up
49	LHLDZ5047CHZZ	AC	N	C	Holder,gear
50	MSPRT5165BCZZ	AA		C	Spring,ribbon
51	NGERK5104CHZZ	AC	N	C	Gear,ribbon
52	LX-BZ5056BCZZ	AA		C	Screw
501	CHLDZ5047CH01	AM	N	E	Ass'y,gear holder
	(Unit)				
901	CDAiH5032CH02	BR	N	E	Ass'y,carrier

3 Carrier assembly



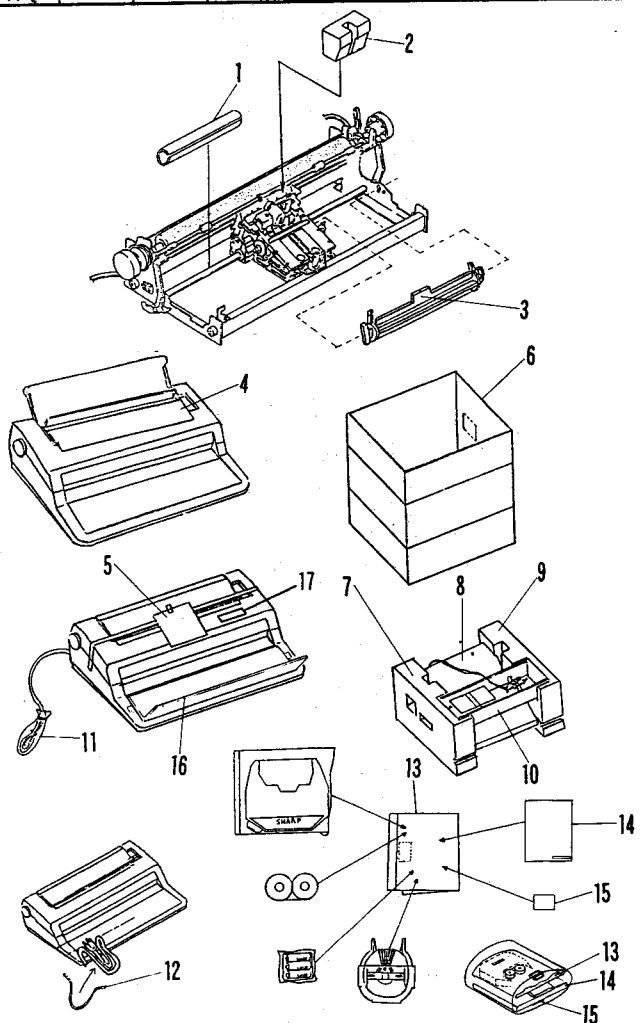
[4] Unit,wheel motor fixing plate

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
B01	LX-BZ5030BCZZ	AA		C	Screw
B02	LX-BZ5030BCZZ	AA		C	Screw
B03	LX-BZ5058BCZZ	AA		C	Screw (3×6)
B04	LX-BZ5058BCZZ	AA		C	Screw (3×6)
B05	LX-BZ5077BCZZ	AA		C	Screw
E01	XRESJ30-06000	AB		C	E type ring
E02	XRESJ20-04000	AA		C	E type ring
W01	LX-WZ5032BCZZ	AA		C	Washer
1	PCOVP5064CHZZ	AG	N	C	Cover,hammer
2	RMOTS5051BCZZ	AU	N	B	Motor,wheel
3	DUNT-6500BCZZ	AX	N	E	Ass'y,hammer
4	MLEVP5082BCZZ	AC		C	Release lever,wheel
5	NBRGM5043CHZZ	AA		C	Metal, wheel shaft
6	LPLTM5101CHZZ	AQ	N	C	Plate,wheel motor
7	MLEVP5090CHZZ	AE	N	C	Lever
8	MSPRT5172BCZZ	AA		C	Spring
9	NGERH5106CHZZ	AC	N	C	Gear,wheel
10	MSPRC5151BCZZ	AA		C	Spring, wheel flange gear
11	NGERH5105CHZZ	AH	N	C	Gear,wheel flange



5 Packing material & Accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LSTPP5030HHZZ	——	N	C	Stopper R,carrier (For Europe)
	LSTPP5030BCZZ	AC		C	Stopper L,carrier (Other countries)
2	SPAKA5678HHZZ	AA	N	D	Packing aid,head protect (For Europe)
	SPAKA5678BCZZ	AE		D	Packing aid,head protect (Other countries)
3	LSTPP5028CHZZ	AC		C	Stopper, carrier
4	PSPF-5063CHZZ	AB		C	Cushion,protect (G1,G3) (Ref.destination table CODE)
5	TCAUH5057BCZZ	AA		C	Caution label (USA only)
	TCAUH5059HHZZ	AA	N	C	Caution label (For Europe)
	TCAUH5059BCZZ	AA		C	Caution label (Other countries)
6	SPAKG5770HHZZ	AQ	N	D	Packing case (For Europe)
	SPAKG5770CHZZ	AW	N	D	Packing case (Other countries)
7	SPAKX5676HHZZ	AK	N	D	Packing aid (Left) (For Europe)
	SPAKX5676BCZZ	AK		D	Packing aid (Left) (Other countries)
8	SSAKH0001JHZZ	AE	N	D	Vinyl bag for body (580×510×350㎜)(For Europe)
	SSAKH0004FCZZ	AD		D	Vinyl bag for body (530×460×350㎜)(Other countries)
9	SPAKX5675HHZZ	AK	N	D	Packing aid (Right) (For Europe)
	SPAKX5675BCZZ	AK		D	Packing aid (Right) (Other countries)
10	SPAKA5677HHZZ	AC	N	D	Packing aid (For Europe)
	SPAKA5677BCZZ	AD		D	Packing aid (Other countries)
11	SSAKH0002JHZZ	AA	N	D	Vinyl bag (120×260㎜)(For Europe)
	SSAKH1020CCZZ	AA		D	Vinyl bag (120×260㎜)(Other countries)
12	UBNDA5000HHZZ	AA	N	C	Band,AC cord (For Europe)
	UBNDA1008CCZZ	AA		C	Band,AC cord (Other countries)
13	SSAKH5012HHZZ	AA	N	D	Vinyl bag (280×300㎜)(For Europe)
	SSAKH5012CHZZ	AB		D	Vinyl bag (280×300㎜)(Other countries)
14	TINSE5488CHZZ	AS	N	D	Operation manual (Type−A) (Ref.destination table)
	TINSG5503CHZZ	AX	N	D	Operation manual (Type−B) (Ref.destination table)
	TINSK5501CHZZ	AV	N	D	Operation manual (Type−C) (Ref.destination table)
	TINSE5502CHZZ	AV	N	D	Operation manual (Type−D) (Ref.destination table)
	TINSG5503HHZZ	AP	N	D	Operation manual (Type−E) (Ref.destination table)
	CINSE5502CH01	BB	N	D	Operation manual (Type−F) (Ref.destination table)
	TINSE5505HHZZ	AX	N	D	Operation manual (Type−G) (Ref.destination table)
15	TLABZ5125CHZZ	AB	N	C	Label,service (USA only)
16	SPAKA5671HHZZ	——	N	D	Packing cushion for key (For Europe)
	SPAKA5671CHZZ	AE	N	D	Packing cushion for key (Other countries)
17	TLABM5163HHZZ	AC	N	C	POP−UP label (U.Kingdom only)
101	PCOVP5059BCZZ	AQ		D	Cover,dust (CANADA only)



6 Unit,Main control PWB Type-A,B(Ref.dstination table)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	RALMB5006SCZZ	AD		B	Buzzer (EFB-RD22C01)	[BZ1]
2	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C1]
3	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C2]
4	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C3]
5	VCSAVU1AE106M	AC	N	C	Capacitor (10WV 10μF)	[C4]
6	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C5]
7	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C6]
8	VCKYPU1HF473Z	AB		C	Capacitor (50WV 0.047μF)	[C7]
9	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C8]
10	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C9]
11	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C10]
12	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C11]
13	VCEAGU1HW228M	AH		C	Capacitor (50WV 2200μF)	[C12]
14	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C13]
15	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C14]
16	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C15]
17	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C16]
18	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C17]
19	VCEAGU1HW225M	AA		C	Capacitor (50WV 2.2μF)	[C18]
20	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C19]
21	VCKYPU1HB101K	AA		C	Capacitor (50WV 100pF)	[C20]
22	VCKYPU1HB101K	AA		C	Capacitor (50WV 100pF)	[C21]
23	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C22]
24	RC-AZFS0H224Z	AM		C	Capacitor (0.22μF)	[C23]
25	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C24]
26	VCEAGU1VW477M	AD		C	Capacitor (35WV 470μF)	[C25]
27	VCEAGU1CW108M	AD		C	Capacitor (16WV 1000μF)	[C26]
28	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C33]
29	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C34]
30	QCNCM5086BC0B	AA		B	Connector (2pin) (Type-B)	[CN2]
31	QCNCM5090BC1F	AE		C	Connector (16pin)	[CN3]
32	QCNCM5090BC2H	AB	N	C	Connector (28pin)	[CN5]
33	QCNCM5086BC0F	AB		C	Connector (6pin)	[CN6]
34	QCNCM5086BC0F	AB		C	Connector (6pin)	[CN7]
35	QCNCM5086BC0B	AA		B	Connector (2pin)	[CN8]
36	VHD10E1N///-1	AB		B	Diode (10E1N)	[D1]
37	VHERD30FB2/-1	AC		B	Zener diode (RD30FB2)	[D2]
38	VHERD20EB3/-1	AB		B	Zener diode (RD20EB3)	[D3]
39	VHD10E1N///-1	AB		B	Diode (10E1N)	[D4]
40	VHERD20EB3/-1	AB		B	Zener diode (RD20EB3)	[D5]
41	VHERD30FB2/-1	AC		B	Zener diode (RD30FB2)	[D6]
42	VHD1SR124-200	AB		B	Diode (1SR124-200)	[D7]
43	VHD10E1N///-1	AB		B	Diode (10E1N)	[D8]
44	VHD10E1N///-1	AB		B	Diode (10E1N)	[D9]
45	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D10]
46	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D11]
47	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D12]
48	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D13]
49	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D14]
50	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-A)	[D15]
51	VHERD12EB//-1	AD		B	Zener diode (RD12EB)	[D16]
52	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D17]
53	VHEHZ3B1///-1	AB		B	Zener diode (HZ3B1)	[D18]
54	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D19]
55	VHERD5.6EB2-1	AB		B	Zener diode (RD5.6EB2)	[D20]
56	VHDRU3M////-1	AC		B	Diode (RU3M)	[D21]
57	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D22]
58	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D23]
59	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D24]
60	VHERD15EB2/-1	AA		B	Zener diode (RD15EB2)	[D25]
61	VHDRU3M////-1	AC		B	Diode (RU3M)	[D26]
62	VHDRBV401F/-1	AF		B	Diode (RBV401F)	[DB1]
63	QFSHA1002CCZZ	AB		C	Fuse holder (MINI TYPE)	[FH]
⚠ 64	QFS-B0301QCZZ	AE		A	Fuse (3.15A/125V)(Type-A)	[FUSE]
⚠ 64	QFS-C1025CCZZ	AF		A	Fuse (3.15A/250V)(Type-B)	[FUSE]
65	VHiM54567//-1	AL		B	IC (M54567)	[IC1]
66	VHiSN74LS07-1	AK		B	IC (SN74LS07)	[IC2]
67	VHiM54567//-1	AL		B	IC (M54567)	[IC3]
68	VHiM54567//-1	AL		B	IC (M54567)	[IC4]
69	VHi5L8042-154	AR	N	B	IC (5L8042-154)	[IC5]
70	VHiSTA402A/-1	AL		B	IC (STA402A)	[IC6]
71	VHiM54567//-1	AL		B	IC (M54567)	[IC7]
72	VHiLH531423-1	AS	N	B	Mask ROM (LH531423)	[IC8]
73	VHiTC5563L15L	AU		B	IC (TC5563L15L)	[IC9]
74	VHiLZ92K47/-1	AM	N	B	IC (LZ92K47)	[IC10]
75	VHi63B03Y//-1	AY		B	CPU (63B03Y)	[IC11]
76	VHiiR2339//-1	AG		B	IC (IR2339)	[IC12]
77	VHiSTR20005-1	AQ		B	IC (STR20005)	[IC14]
78	QCNCM5080BC0C	AC		B	Connector (3pin)(Type-A)(Ref.destination table)	[JP1]
79	RCORF5002BCZZ	AB		C	Core (B-01-A)	[L1]
80	RCORF5002BCZZ	AB		C	Core (B-01-A)	[L2,L2]
81	RCiLZ5029CHZZ	AR	N	C	Coil (350μH)	[L3]
82	RCiLZ5029CHZZ	AR	N	C	Coil (350μH)	[L4]

6 Unit,Main control PWB Type-A,B(Ref.dstination table)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
83	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R1]
84	VRD-RC2EY822J	AA		C	Resistor (1/4W 8.2KΩ ±5%)	[R2]
85	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R3]
86	VRD-RC2EY821J	AA		C	Resistor (1/4W 820Ω ±5%)	[R4]
87	VRD-HT2HY390J	AA		C	Resistor (1/2W 39Ω ±5%)	[R5]
88	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R8]
89	VRD-RC2EY101J	AA		C	Resistor (1/4W 100Ω ±5%)	[R9]
90	VRS-HT3AAR22J	AA	N	C	Resistor (1W 0.22Ω ±5%)	[R10]
91	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R11]
92	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R12]
93	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R13]
94	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R14]
95	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R15]
96	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R16]
97	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R17]
98	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R18]
99	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R19]
100	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R20]
101	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R21]
102	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R22]
103	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R23]
104	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R24]
105	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R25]
106	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R26]
107	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R27]
108	VRD-RC2EY392J	AA		C	Resistor (1/4W 3.9KΩ ±5%)	[R29]
109	VRD-RC2EY821J	AA		C	Resistor (1/4W 820Ω ±5%)	[R30]
110	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R31]
111	VRD-RC2EY153J	AA		C	Resistor (1/4W 15KΩ ±5%)	[R32]
112	VRD-RC2EY153J	AA		C	Resistor (1/4W 15KΩ ±5%)	[R33]
113	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R34]
114	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R35]
115	VRD-RC2EY242J	AA		C	Resistor (1/4W 2.4KΩ ±5%)	[R36]
116	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R37]
117	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R38]
118	VRD-RC2EY333J	AA		C	Resistor (1/4W 33KΩ ±5%)	[R39]
119	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R40]
120	VRD-RC2EY682J	AA		C	Resistor (1/4W 6.8KΩ ±5%)	[R41]
121	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R42]
122	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R43]
123	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R44]
124	VRD-RC2EY332J	AA		C	Resistor (1/4W 3.3KΩ ±5%)	[R45]
125	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R46]
126	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R47]
127	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R4]
128	VRD-HT2HY394J	AA		C	Resistor (1/2W 390KΩ ±5%)	[R49]
129	VRD-RC2EY221J	AA		C	Resistor (1/4W 220Ω ±5%)	[R50]
130	VRD-RC2EY362J	AA		C	Resistor (1/4W 3.6KΩ ±5%)	[R51]
131	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R52]
132	VRD-RC2EY101J	AA		C	Resistor (1/4W 100Ω ±5%)	[R53]
133	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R54]
134	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R55]
135	VRD-HT2HY122J	AA	N	C	Resistor (1/2W 1.2KΩ ±5%)	[R56]
136	VRD-RC2EY151J	AA		C	Resistor (1/4W 150Ω ±5%)	[R58]
137	VRD-RC2EY331J	AA		C	Resistor (1/4W 330Ω ±5%)	[R59]
138	VRD-HT2HY332J	AA		C	Resistor (1/2W 3.3KΩ ±5%)	[R60]
139	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R61]
140	VRS-HT3DA102J	AA	N	C	Resistor (2W 1.0KΩ ±5%)	[R62]
141	VRD-HT2EY510J	AA	N	C	Resistor (1/4W 51Ω ±5%)	[R69]
142	RMPTC4102QCKB	AC		B	Block resistor (1KΩ×4 1/8W ±10%)	[RA1]
143	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA2]
144	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA3]
145	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA4]
146	RMPTC8102QCKB	AD		B	Block resistor (1.0KΩ×8 1/8W ±10%)	[RA5]
147	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA6]
148	RMPTC4103QCKB	AC		B	Block resistor (10KΩ×4 1/8W ±10%)	[RA7]
149	RMPTC8153QCKB	AD		B	Resistor array (15KΩ×8 1/8W ±10%)	[RA8]
150	VS2SD1769-/-1	AE		B	Transistor (2SD1769)	[TR1]
151	VS2SA675-//-1	AD		B	Transistor (2SA675)	[TR2]
152	VSJC501-///-1	AB		B	Transistor (JC501)	[TR3]
153	VSJC501-///-1	AB		B	Transistor (JC501)	[TR4]
154	VSJC501-///-1	AB		B	Transistor (JC501)	[TR5]
155	VSJC501-///-1	AB		B	Transistor (JC501)	[TR6]
156	VS2SB1258-/-1	AE		B	Transistor (2SB1258)	[TR7]
157	RVR-M5213QCN4	AG		B	Variable resistor (500Ω)	[VR1]
158	RCRSZ5017BCZZ	AD		B	Crystal (12.0MHZ)	[X1]
159	RCRSP5019BCZZ	AD		B	Crystal (7.37MHz)	[X2]
160	QSOCZ6428ACZZ	AE		C	28pin IC socket for IC8	
161	QSOCZ6440ACZZ	AG		C	40pin IC socket for IC5	
162	QCNCW5113BC0B	AD		B	Connector (2pin)(CANADA only)	
163	QCNCW6887RC0B	AB		B	Connector (2pin)(CANADA only)	
	(Unit)					
901	CPWBF5152CH01	CB	N	E	Unit,Main control PWB (Type-A)	(Ref.destination table)
	CPWBF5152CH03	CB	N	E	Unit,Main control PWB (Type-B)	(Ref.destination table)

7 Unit,Main control PWB Type-C,D(Ref.destination table)

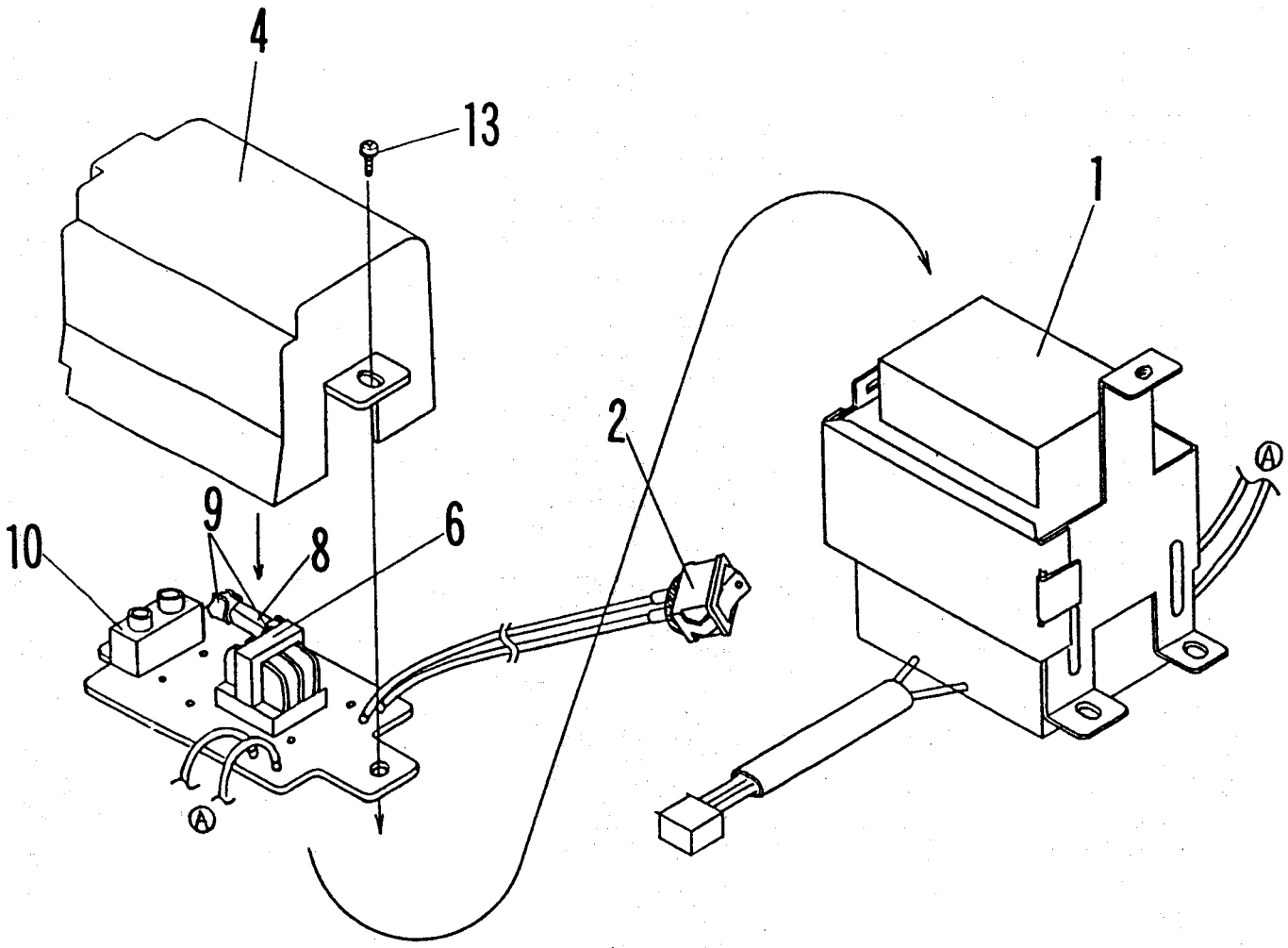
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	RALMB5006SCZZ	AD		B	Buzzer (EFB-RD22C01)	[BZ1]
2	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C1]
3	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C2]
4	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C3]
5	VCSAVU1AE106M	AC	N	C	Capacitor (10WV 10μF)	[C4]
6	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C5]
7	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C6]
8	VCKYPU1HF473Z	AB		C	Capacitor (50WV 0.047μF)	[C7]
9	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C8]
10	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C9]
11	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C10]
12	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C11]
13	VCEAGU1HW228M	AH		C	Capacitor (50WV 2200μF)	[C12]
14	VCQYNU1HM104K	AB		C	Capacitor (50WV 0.1μF)	[C13]
15	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C14]
16	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C15]
17	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C16]
18	VCKYPU1HF223Z	AA		C	Capacitor (50WV 22000pF)	[C17]
19	VCEAGU1HW225M	AA		C	Capacitor (50WV 2.2μF)	[C18]
20	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C19]
21	VCKYPU1HB101K	AA		C	Capacitor (50WV 100pF)	[C20]
22	VCKYPU1HB101K	AA		C	Capacitor (50WV 100pF)	[C21]
23	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C22]
24	RC-AZFS0H224Z	AM		C	Capacitor (0.22μF)	[C23]
25	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C24]
26	VCEAGU1VW477M	AD		C	Capacitor (35WV 470μF)	[C25]
27	VCEAGU1CW108M	AD		C	Capacitor (16WV 1000μF)	[C26]
28	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C33]
29	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)	[C34]
30	QCNCM5086BC0B	AA		B	Connector (2pin) (Type-C)	[CN2]
31	QCNCM5090BC1F	AE		C	Connector (16pin)	[CN3]
32	QCNCM5090BC2H	AB	N	C	Connector (28pin)	[CN5]
33	QCNCM5086BC0F	AB		C	Connector (6pin)	[CN6]
34	QCNCM5086BC0F	AB		C	Connector (6pin)	[CN7]
35	QCNCM5086BC0B	AA		B	Connector (2pin)	[CN8]
36	VHD10E1N///-1	AB		B	Diode (10E1N)	[D1]
37	VHERD30FB2/-1	AC		B	Zener diode (RD30FB2)	[D2]
38	VHERD20EB3/-1	AB		B	Zener diode (RD20EB3)	[D3]
39	VHD10E1N///-1	AB		B	Diode (10E1N)	[D4]
40	VHERD20EB3/-1	AB		B	Zener diode (RD20EB3)	[D5]
41	VHERD30FB2/-1	AC		B	Zener diode (RD30FB2)	[D6]
42	VHD1SR124-200	AB		B	Diode (1SR124-200)	[D7]
43	VHD10E1N///-1	AB		B	Diode (10E1N)	[D8]
44	VHD10E1N///-1	AB		B	Diode (10E1N)	[D9]
45	VHERD12EB//-1	AD		B	Zener diode (RD12EB)	[D16]
46	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D17]
47	VHEHZ3B1///-1	AB		B	Zener diode (HZ3B1)	[D18]
48	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D19]
49	VHERD5.6EB2-1	AB		B	Zener diode (RD5.6EB2)	[D20]
50	VHDRU3M////-1	AC		B	Diode (RU3M)	[D21]
51	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D22]
52	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D23]
53	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D24]
54	VHERD15EB2/-1	AA		B	Zener diode (RD15EB2)	[D25]
55	VHDRU3M////-1	AC		B	Diode (RU3M)	[D26]
56	VHDRBV401F/-1	AF		B	Diode (RBV401F)	[DB1]
57	QFSHA1002CCZZ	AB		C	Fuse holder (MINI TYPE)	[FH]
⚠ 58	QFS-C1025CCZZ	AF		A	Fuse (3.15A/250V)	[FUSE]
59	VHiM54567//-1	AL		B	IC (M54567)	[IC1]
60	VHiSN74LS07-1	AK		B	IC (SN74LS07)	[IC2]
61	VHiM54567//-1	AL		B	IC (M54567)	[IC3]
62	VHiM54567//-1	AL		B	IC (M54567)	[IC4]
63	VHiD80C42-151	AW	N	B	IC (D80C42-151)	[IC5]
64	VHiSTA402A/-1	AL		B	IC (STA402A)	[IC6]
65	VHiM54567//-1	AL		B	IC (M54567)	[IC7]
66	VHi27512B401A	BN	N	B	Mask ROM (27512B401A)	[IC8]
67	VHiTC5563L15L	AU		B	IC (TC5563L15L)	[IC9]
68	VHiLZ92K47/-1	AM	N	B	IC (LZ92K47)	[IC10]
69	VHi63B03Y//-1	AY		B	CPU (63B03Y)	[IC11]
70	VHiiR2339//-1	AG		B	IC (IR2339)	[IC12]
71	VHiSTR20005-1	AQ		B	IC (STR20005)	[IC14]
72	RCŌRF5002BCZZ	AB		C	Core (B-01-A)	[L1]
73	RCiLC5030BCZZ	AF	N	C	Core (B-01-A)	[L2]
74	RCiLZ5023BCZZ	AH		C	Coil (350μH)	[L3]
75	RCiLZ5023BCZZ	AH		C	Coil (350μH)	[L4]
76	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R1]
77	VRD-RC2EY822J	AA		C	Resistor (1/4W 8.2KΩ ±5%)	[R2]
78	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R3]
79	VRD-RC2EY821J	AA		C	Resistor (1/4W 820Ω ±5%)	[R4]
80	VRD-RC2EY750J	AA		C	Resistor (1/4W 75Ω ±5%)	[R5]

7 Unit,Main control PWB Type-C,D(Ref.destination table)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
81	VRD-RC2EY750J	AA		C	Resistor (1/4W 75Ω ±5%)	[R6]
82	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R8]
83	VRD-RC2EY101J	AA		C	Resistor (1/4W 100Ω ±5%)	[R9]
84	VRS-ST3ABR22K	AA		C	Resistor (1W 0.22Ω ±10%)	[R10]
85	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R11]
86	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R12]
87	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R13]
88	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R14]
89	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R15]
90	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R16]
91	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R17]
92	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R18]
93	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R19]
94	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R20]
95	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R21]
96	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R22]
97	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R23]
98	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R24]
99	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R25]
100	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R26]
101	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R27]
102	VRD-RC2EY392J	AA		C	Resistor (1/4W 3.9KΩ ±5%)	[R29]
103	VRD-RC2EY821J	AA		C	Resistor (1/4W 820Ω ±5%)	[R30]
104	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R31]
105	VRD-RC2EY153J	AA		C	Resistor (1/4W 15KΩ ±5%)	[R32]
106	VRD-RC2EY153J	AA		C	Resistor (1/4W 15KΩ ±5%)	[R33]
107	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R34]
108	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R35]
109	VRD-RC2EY242J	AA		C	Resistor (1/4W 2.4KΩ ±5%)	[R36]
110	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R37]
111	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R38]
112	VRD-RC2EY333J	AA		C	Resistor (1/4W 33KΩ ±5%)	[R39]
113	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R40]
114	VRD-RC2EY682J	AA		C	Resistor (1/4W 6.8KΩ ±5%)	[R41]
115	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R42]
116	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R43]
117	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R44]
118	VRD-RC2EY332J	AA		C	Resistor (1/4W 3.3KΩ ±5%)	[R45]
119	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R46]
120	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)	[R47]
121	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)	[R48]
122	VRD-HT2HY394J	AA		C	Resistor (1/2W 390KΩ ±5%)	[R49]
123	VRD-RC2EY221J	AA		C	Resistor (1/4W 220Ω ±5%)	[R50]
124	VRD-RC2EY362J	AA		C	Resistor (1/4W 3.6KΩ ±5%)	[R51]
125	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)	[R52]
126	VRD-RC2EY101J	AA		C	Resistor (1/4W 100Ω ±5%)	[R53]
127	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)	[R54]
128	VRD-RC2EY391J	AA		C	Resistor (1/4W 390Ω ±5%)	[R55]
129	VRD-RC2EY242J	AA		C	Resistor (1/4W 2.4KΩ ±5%)	[R56]
130	VRD-RC2EY242J	AA		C	Resistor (1/4W 2.4KΩ ±5%)	[R57]
131	VRD-RC2EY151J	AA		C	Resistor (1/4W 150Ω ±5%)	[R58]
132	VRD-RC2EY331J	AA		C	Resistor (1/4W 330Ω ±5%)	[R59]
133	VRD-HT2HY332J	AA		C	Resistor (1/2W 3.3KΩ ±5%)	[R60]
134	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)	[R61]
135	VRS-HT3DA102J	AA	N	C	Resistor (2W 1.0KΩ ±5%)	[R62]
136	VRD-HT2EY510J	AA	N	C	Resistor (1/4W 51Ω ±5%)	[R69]
137	RMPTC4102QCKB	AC		B	Block resistor (1KΩ×4 1/8W ±10%)	[RA1]
138	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA2]
139	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA3]
140	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA4]
141	RMPTC8102QCKB	AD		B	Block resistor (1.0KΩ×8 1/8W ±10%)	[RA5]
142	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)	[RA6]
143	RMPTC4103QCKB	AC		B	Block resistor (10KΩ×4 1/8W ±10%)	[RA7]
144	RMPTC8153QCKB	AD		B	Resistor array (15KΩ×8 1/8W ±10%)	[RA8]
145	VS2SD1769-/-1	AE		B	Transistor (2SD1769)	[TR1]
146	VS2SA675-//-1	AD		B	Transistor (2SA675)	[TR2]
147	VSJC501-///-1	AB		B	Transistor (JC501)	[TR3]
148	VSJC501-///-1	AB		B	Transistor (JC501)	[TR4]
149	VSJC501-///-1	AB		B	Transistor (JC501)	[TR5]
150	VSJC501-///-1	AB		B	Transistor (JC501)	[TR6]
151	VS2SB1258-/-1	AE		B	Transistor (2SB1258)	[TR7]
152	RVR-M5213QCN4	AG		B	Variable resistor (500Ω)	[VR1]
153	RCRSZ5017BCZZ	AD		B	Crystal (12.0MHZ)	[X1]
154	RCRSP5019BCZZ	AD		B	Crystal (7.37MHz)	[X2]
155	QSOCZ6428ACZZ	AE		C	28pin IC socket for IC8	
156	QSOCZ6440ACZZ	AG		C	40pin IC socket for IC5	
157	VHDDSS133HV-1	AA		B	Diode (DSS133HV)(Type-D)	[D11]
	(Unit)					
901	CPWBF5152HH03	CC	N	E	Unit,Main control PWB (Type-C)	(Ref.destination table)
	CPWBF5152HH01	CC	N	E	Unit,Main control PWB (Type-D)	(Ref.destination table)

8 Unit,Power supply Type-A,B,D,E(Ref.destination table)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
⚠ 1	0FYPT-F7024//	AY	N	B	Power trans (110V)(Type-A)	
⚠ 1	0FYPT-Z6914//	AY	N	B	Power trans (120V)(Type-B)	
⚠ 1	0FYPT-F7021//	AZ	N	B	Power trans (220V)(Type-D)	
⚠ 1	0FYPT-F7022//	AZ	N	B	Power trans (240V)(Type-E)	
2	0FYSW-Z6914//	AH	N	B	Power switch (120V)(Type-B)	
2	0FYSW-F7021//	AH	N	B	Power switch (110V/220V/240V) (Type-A,D,E)	
4	PCOVP5065CHZZ	AK	N	D	NF P.W.B cover	
6	0FYSU10V10030	AG	N	C	Coil	
⚠ 8	0FY5TT1.6////	AE	N	A	Current fuse (120V)(Type-B)	
⚠ 8	0FY5ST800-D//	AE	N	A	Current fuse (110V/220V/240V) (Type-A,D,E)	
9	0FY57 2018-D//	AB	N	C	Fuse holder	
10	0FYGSK801-2DS	AF	N	C	AC terminal	
13	XBPSD30P08KS0	AA		C	Screw	
	(Unit)					
901	DUNTK6577CHZZ	BU	N	E	Unit,Power supply (110V)(Type-A)	(Ref.destination table)
901	DUNTK6498CHZZ	BX	N	E	Unit,Power supply (120V)(Type-B)	(Ref.destination table)
901	DUNTK6537CHZZ	BQ	N	E	Unit,Power supply (220V)(Type-D)	(Ref.destination table)
901	DUNTK6536CHZZ	BQ	N	E	Unit,Power supply (240V)(Type-E)	(Ref.destination table)



9 Unit,Power supply Type-F,G(Ref.destination table)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
	(Unit)					
901	DUNTK6537HHZZ	BH	N	E	Unit,power supply(220V)(Type-F)	(Ref.destination table)
	DUNTK6536HHZZ	BH	N	E	Unit,power supply(240V)(Type-G)	(Ref.destination table)

10 Unit,interface PWB(For Europe except U,Kingdom)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	QCNCM5090BC2H	AB	N	C	Connector (28pin)	[CN5]
2	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D1]
3	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D2]
4	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D3]
5	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D4]
6	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D5]
7	VHDDSS133HV-1	AA		B	Diode (DSS133HV)	[D6]
8	QSW-Z1045ACZZ	AG		B	Dip switch (6point)	[DIP-SW]
9	QCNW-5231BCZZ	AF	N	C	Cable,interface	
	(Unit)					
901	DUNTK6557CHZZ	BU	N	E	Unit,interface PWB (G1)	(Ref.destination table CODE)
	DUNTK6557HHZZ	—	N	E	Unit,interface PWB (G3)	(Ref.destination table CODE)

11 Unit,Carrier PWB

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	QCNCM5081BC1F	AE		C	Connector (16pin)	[CN3]
2	QCNCM5087BC0F	AB		C	Connector (6pin)	[CN17]
3	QCNCM5086BC0F	AB		C	Connector (6pin)	[CN18]
4	QCNCM5058BCZZ	AB		B	Connector (2pin)	[CN19]
5	VRD-HT2EY121J	AA		C	Resistor (1/4W 120Ω ±5%)	[R1]
6	VHPGP1S52//-1	AF		B	Photo transistor (GP1S52)	
	(Unit)					
901	CPWBF5143CH02	AS	N	E	Unit,Carrier PWB	

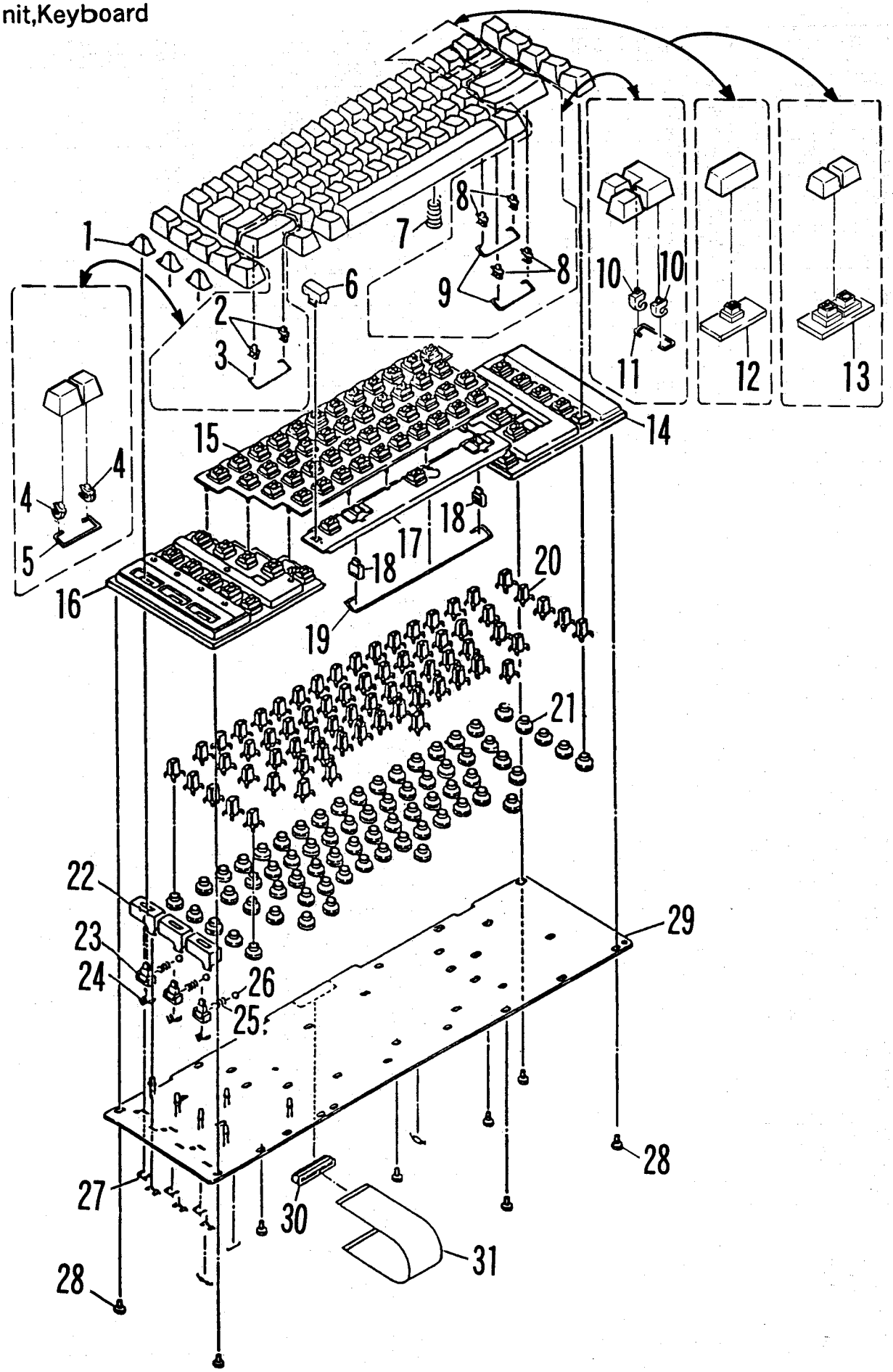
12 Unit,Keyboard

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	0EN8300-0077/	AB		C	Slide SW knob (A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8300-0110/	AB		C	Slide SW knob (M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
2	0EN8330-0021/	AA		C	Stabilizer Guide (A,M,Q,EA,ET,EU,U)	(Ref.destination table CODE)
3	0EN8210-0020/	AB		C	Stabilizer (3U)(A,M,Q,EA,ET,EU,U)	(Ref.destination table CODE)
4	0EN8330-0021/	AA		C	Stabilizer guide (G1,G3,EJ)	(Ref.destination table CODE)
5	0EN8210-0015/	AB		C	Stabilizer (2U)(G1,G3,EJ)	(Ref.destination table CODE)
6	0EN8300-0078/	AB		D	Dummy cover (A,Q,EA,ET)	(Ref.destination table CODE)
6	0EN8300-0095/	AB		D	Dummy cover (M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
7	0EN8210-0004/	AA		C	Coil Spring	
8	0EN8330-0021/	AA		C	Stabilizer guide (A,Q,EA,ET)	(Ref.destination table CODE)
9	0EN8210-0020/	AB		C	Stabilizer (3U)(A,Q,EA,ET)	(Ref.destination table CODE)
10	0EN8330-0021/	AA		C	Stabilizer guide (M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
11	0EN8210-0015/	AB		C	Stabilizer (2U)(M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
12	0EN8300-0116/	AC		C	Block housing (2U)(G1,G3,EJ)	(Ref.destination table CODE)
13	0EN8300-0115/	AE		C	Block housing (1U×2)(M,EU,U)	(Ref.destination table CODE)
14	0EN8300-0075/	AD		C	K/B frame (R−C)(A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8300-0114/	AE		C	K/B frame (R−E)(M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
15	0EN8300-0070/	AE		C	K/B frame (ASCII)(A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8300-0090/	AE		C	K/B frame (ASCII)(M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
16	0EN8300-0074/	AD		C	K/B frame (L−C)(A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8300-0120/	AE		C	K/B frame (L−C)(M,EU,U)	(Ref.destination table CODE)
	0EN8300-0111/	AE	N	C	K/B frame (L−D)(G1,G3,EJ)	(Ref.destination table CODE)
17	0EN8300-0071/	AD		C	K/B frame (S−B)(A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8300-0091/	AD		C	K/B frame (S−B)(M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
18	0EN8330-0024/	AA		C	Space Bar Guide	
19	0EN8230-0013/	AD	N	C	Stabilizer 8U 2 (A,Q,EA,ET)	(Ref.destination table CODE)
	0EN8230-0008/	AC		C	Stabilizer 8U 2 (M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
20	0EN8350-0234/	AA		C	Key Stem	
21	0EN8330-0022/	AA		C	Rubber Contact	
22	0EN1003-0203/	AC		C	Slide SW housing	
23	0EN8350-0247/	AB		C	Slide SW slider	
24	0EN1002-0028/	AA		C	CL−spring	
25	0EN1011-0032/	AA		C	Spring	
26	0EN1012-4503/	AA		C	Steel ball	
27	0EN1002-0066/	AA		C	Slide SW fastener	
28	0EN8610-0003/	AA	N	C	PTB screw (M2.6×6)	
29	0EN4105-5003/	AY		E	Keyboard PWB unit (A,Q,EA,ET)	(Ref.destination table CODE)
	0EN4105-5004/	AZ		E	Keyboard PWB unit (M,G1,G3,EJ,EU,U)	(Ref.destination table CODE)
30	0EN3192-0028/	AH		C	Female connector	
31	0EN3193-0044/	AH		C	FPC joiner	

51 Keyboard

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	DUNTK6501BCZZ	BF	N	E	Keyboard (Type−A)	(Ref.destination table)
	DUNTK6533BCZZ	BG	N	E	Keyboard (Type−B)	(Ref.destination table)
	DUNTK6532BCZZ	BG	N	E	Keyboard (Type−C)	(Ref.destination table)
	DUNTK6516BCZZ	BF	N	E	Keyboard (Type−D)	(Ref.destination table)
	DUNTK6533HHZZ	BH	N	E	Keyboard (Type−E)	(Ref.destination table)
	DUNTK6579BCZZ	BF	N	E	Keyboard (Type−F)	(Ref.destination table)
	DUNTK6535BCZZ	BF	N	E	Keyboard (Type−G)	(Ref.destination table)
	DUNTK6535HHZZ	BH	N	E	Keyboard (Type−H)	(Ref.destination table)

12 Unit,Keyboard



■ Index

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
〔C〕					
CCNW-5223BC01	2- 24	AG	N	B	
CDAiH5032CH02	2- 501	BR	N	E	
〃	3- 901	BR	N	E	
CHLDZ5047CH01	3- 501	AM	N	E	
CiNSE5502CH01	5- 14	BB	N	D	
CKNBZ5060CH01	2- 8	AN	N	E	
CKNBZ5066CH01	2- 8	AN	N	E	
CPWBF5143CH02	3- 28	AS	N	E	
〃	11- 901	AS	N	E	
CPWBF5152CH01	1- 15	CB	N	E	
〃	6- 901	CB	N	E	
CPWBF5152CH03	1- 15	CB	N	E	
〃	6- 901	CB	N	E	
CPWBF5152HH01	1- 15	CC	N	E	
〃	7- 901	CC	N	E	
CPWBF5152HH03	1- 15	CC	N	E	
〃	7- 901	CC	N	E	
〔D〕					
DUNT-6500BCZZ	4- 3	AX	N	E	
DUNTK6498CHZZ	1- 501	BX	N	E	
〃	8- 901	BX	N	E	
DUNTK6501BCZZ	51- 1	BF	N	E	
DUNTK6516BCZZ	51- 1	BF	N	E	
DUNTK6532BCZZ	51- 1	BG	N	E	
DUNTK6533BCZZ	51- 1	BG	N	E	
DUNTK6533HHZZ	51- 1	BH	N	E	
DUNTK6535BCZZ	51- 1	BF	N	E	
DUNTK6535HHZZ	51- 1	BH	N	E	
DUNTK6536CHZZ	1- 501	BQ	N	E	
〃	8- 901	BQ	N	E	
DUNTK6536HHZZ	1- 501	BH	N	E	
〃	9- 901	BH	N	E	
DUNTK6537CHZZ	1- 501	BH	N	E	
〃	8- 901	BQ	N	E	
DUNTK6537HHZZ	1- 501	BH	N	E	
〃	9- 901	BH	N	E	
DUNTK6557CHZZ	1- 31	BU	N	E	
〃	10- 901	BU	N	E	
DUNTK6557HHZZ	1- 31	—	N	E	
〃	10- 901	—	N	E	
DUNTK6577CHZZ	1- 501	BU	N	E	
〃	8- 901	BU	N	E	
DUNTK6579BCZZ	51- 1	BF	N	E	
〔G〕					
GCABA5093CHZB	1- 14	AX	N	D	
GCABA5094CHZB	1- 14	AX		D	
GCABB5106CHZA	1- 27	BB	N	D	
GCABB5106CHZZ	1- 27	BB	N	D	
GCABC5098CHZC	1- 7	AT	N	D	
GCABC5098CHZD	1- 7	AW	N	D	
GCOVZ5097CHZZ	1- 4	AN	N	D	
GiTAT5057CHZB	1- 1	AQ	N	D	
GiTAT5058CHZC	1- 1	AQ	N	D	
〔H〕					
HiNDP5021CHZZ	1- 8	AS	N	D	
HSSN-5016CHZZ	3- 27	AD	N	C	
〔J〕					
JKNBZ5059BCZZ	2- 1	AE		C	
JKNBZ5065BCZZ	2- 1	AE		C	
〔L〕					
LANGA5118CHZZ	2- 32	AD	N	C	
LANGK5124CHZZ	1- 18	AG	N	C	
LANGZ5075BCZZ	3- 6	AD		C	
LDAiH5022BCZB	3- 14	AK		C	
LDAiH5032CHZZ	3- 34	AW	N	C	
LFRM-5052CHZZ	2- 30	AH	N	C	
LHLDZ5012BCZZ	3- 4	AC		C	
LHLDZ5029BCZZ	2- 2	AE		C	
LHLDZ5047CHZZ	3- 49	AC	N	C	
LHLDZ5054CHZZ	2- 10	AH	N	C	
LHLDZ5057CHZZ	3- 31	AE	N	C	
LPLTM5051BCZB	2- 26	AC		C	
LPLTM5052BCZB	2- 33	AC		C	
LPLTM5079BCZZ	1- 22	AB		C	
LPLTM5100CHZZ	1- 16	AQ	N	C	
LPLTM5101CHZZ	4- 6	AQ	N	C	
LPLTM5102CHZZ	2- 13	AQ	N	C	
LPLTP5091CHZZ	1- 13	AL	N	C	
LPLTP5092CHZZ	1- 13	AL	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
LPLTP5093CHZZ	1- 3	AK	N	C	
LRALM5019BCZZ	2- 36	AP		C	
LSTPP5028CHZZ	5- 3	AC		C	
LSTPP5030BCZZ	5- 1	AC		C	
LSTPP5030HHZZ	5- 1	—	N	C	
LSTPZ5031CHZZ	2- 37	AG	N	C	
LSTYM5013BCZE	3- 35	AE		C	
LSTYM5020BCZA	3- 29	AE		C	
LSTYM5021BCZA	3- 19	AE		C	
LX-BZ3006SC0M	1-B14	AA		C	
LX-BZ5030BCZZ	4-B01	AA		C	
〃	4-B02	AA		C	
LX-BZ5056BCZZ	3- 52	AA		C	
LX-BZ5058BCZZ	4-B03	AA		C	
〃	4-B04	AA		C	
LX-BZ5077BCZZ	4-B05	AA		C	
〃	4-B06	AA		C	
LX-BZ5090BCZZ	3-B13	AB		C	
〃	3-B14	AB		C	
LX-WZ5032BCZZ	4-W01	AA		C	
〔M〕					
MCAMF5023BCZA	3- 23	AB		C	
MCAMP5028CHZZ	3- 22	AE	N	C	
MLEVP5047BCZA	3- 43	AB		C	
MLEVP5048BCZA	3- 5	AB		C	
MLEVP5082BCZZ	4- 4	AC		C	
MLEVP5084CHZZ	2- 23	AD	N	C	
MLEVP5085CHZZ	2- 23	AD	N	C	
MLEVP5086CHZZ	2- 20	AF	N	C	
MLEVP5087CHZZ	2- 20	AF	N	C	
MLEVP5088CHZA	2- 17	AE	N	C	
MLEVP5090CHZZ	4- 7	AE	N	C	
MSLi-5031CHZZ	3- 26	AC	N	C	
MSPRC5090BCZZ	3- 47	AA		C	
MSPRC5099BCZZ	3- 24	AA		C	
MSPRC5108BCZZ	2- 6	AB		C	
MSPRC5118BCZZ	3- 8	AA		C	
MSPRC5151BCZZ	4- 10	AA		C	
MSPRD5166CHZZ	2- 16	AC	N	C	
MSPRK5173BCZZ	2- 5	AD		C	
MSPRP5107BCZZ	3- 15	AA		C	
MSPRT5091BCZA	3- 42	AA		C	
MSPRT5094BCZA	3- 11	AB		C	
MSPRT5141BCZZ	3- 13	AA		C	
MSPRT5160BCZZ	3- 16	AB		C	
MSPRT5163BCZZ	3- 17	AB		C	
MSPRT5165BCZZ	3- 50	AA		C	
MSPRT5172BCZZ	4- 8	AA		C	
MSPRT5178CHZZ	2- 22	AB	N	C	
MSPRT5179CHZZ	2- 21	AC	N	C	
〔N〕					
NBLTT5012BCZZ	2- 27	AH	N	B	
NBRGM5043CHZZ	4- 5	AA		C	
NBRGP5048CHZZ	2- 3	AD	N	C	
NBRGZ5036BCZZ	3- 20	AD		C	
NGERH5081BCZC	2- 35	AF		C	
NGERH5102CHZZ	3- 44	AC	N	C	
NGERH5103CHZZ	3- 45	AC	N	C	
NGERH5105CHZZ	4- 11	AH	N	C	
NGERH5106CHZZ	4- 9	AC	N	C	
NGERK5104CHZZ	3- 51	AC	N	C	
NGERZ5076BCZB	3- 41	AB		C	
NGERZ5080BCZZ	3- 21	AG		C	
NGERZ5082BCZZ	2- 7	AD		C	
NPLYM5031BCZZ	2- 28	AB	N	C	
NROLP5045CHZZ	3- 1	AA	N	C	
NROLP5049BCZA	2- 19	AE		C	
NROLR5052BCZZ	2- 4	BA		C	
NROLR5056CHZZ	2- 11	AM	N	C	
NROLR5057CHZZ	2- 9	AM	N	C	
NSFTG5084CHZZ	2- 34	AD	N	C	
NSFTP5080CHZZ	3- 48	AD	N	C	
NSFTZ5058BCZA	3- 9	AC		C	
NSFTZ5065BCZA	3- 25	AA		C	
〔P〕					
PBARM5014BCZZ	2- 18	AH		C	
PCAPZ5017BCZZ	3- 10	AB		C	
PCOVP5059BCZZ	5- 101	AQ		D	
PCOVP5063CHZA	1- 25	AN	N	D	
PCOVP5063CHZZ	1- 25	AN	N	D	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
PCOVP5064CHZZ	4- 1	AG	N	C	
PCOVP5065CHZZ	8- 4	AK	N	D	
PCUSG5017CHZZ	3- 7	AB	N	C	
PCUSS5029BCZZ	1- 6	AC		C	
PCUSS5033CHZZ	1- 5	AC	N	C	
PGiDM5019BCZA	3- 32	AD		C	
PGiDM5020BCZA	3- 33	AD		C	
PGiDM5030BCZA	3- 3	AB		C	
PGiDM5031BCZZ	3- 2	AB		C	
PGiDM5047BCZZ	3- 36	AK		C	
PGiDM5049BCZZ	1- 12	AD		C	
PGiDM5053BCZZ	1- 12	AD		C	
PGUMM5025BCZZ	1- 2	AC		C	
PGUMM5035CHZZ	1- 28	AA	N	C	
PGUMM5036BCZZ	2- 25	AB		C	
PGUMM5039CHZZ	2- 12	AC	N	C	
PSHT-5015CHZA	2- 31	AC	N	C	
PSLDC5012CHZZ	1- 29	AP	N	C	
PSLDC5013CHZZ	1- 21	AG	N	C	
PSPAN5064BCZZ	1- 19	AB	N	C	
PSPAX5049BCZZ	3- 12	AA		C	
PSPAZ2114SCZZ	1- 17	AB		C	
PSPAZ5065CHZZ	2- 29	AB	N	C	
PSPF-5051BCZZ	1- 11	AA		C	
PSPF-5063CHZZ	5- 4	AB		C	
PTME-5014BCZB	3- 46	AB		C	
〔Q〕					
QACCB7120JHN3	1- 20	AU	N	B	
QACCB7120QCZZ	1- 20	AX		B	
QACCD8411QCN2	1- 20	AQ		B	
QACCE1422JHN5	1- 20	AU	N	B	
QACCE1422QCN5	1- 20	AN	N	B	
QACCJ3416QCN1	1- 20	AM		B	
QACCL7422QCZZ	1- 20	AT		B	
QACCZ7122QCZZ	1- 20	AR		B	
QACCZ7123QCZZ	1- 20	AW		B	
QCNCM5058BCZZ	11- 4	AB		B	
QCNCM5080BC0C	6- 78	AC		B	
QCNCM5081BC1F	11- 1	AE		C	
QCNCM5086BC0B	6- 30	AA		B	
〃	6- 35	AA		B	
〃	7- 30	AA		B	
〃	7- 35	AA		B	
QCNCM5086BC0F	6- 33	AB		C	
〃	6- 34	AB		C	
〃	7- 33	AB		C	
〃	7- 34	AB		C	
〃	11- 3	AB		C	
QCNCM5087BC0F	11- 2	AB		C	
QCNCM5090BC1F	6- 31	AE		C	
〃	7- 31	AE		C	
QCNCM5090BC2H	6- 32	AB	N	C	
〃	7- 32	AB	N	C	
〃	10- 1	AB	N	C	
QCNCW5113BC0B	6- 162	AD		B	
QCNCW6887RC0B	6- 163	AB		B	
QCNW-5219BCZZ	1- 24	AK	N	C	
QCNW-5220BCZZ	1- 23	AL	N	C	
QCNW-5231BCZZ	10- 9	AF	N	C	
QFS-B0301QCZZ	6- 64	AE		A	
QFS-C1025CCZZ	6- 64	AF		A	
〃	7- 58	AF		A	
QFSHA1002CCZZ	6- 63	AB		C	
〃	7- 57	AB		C	
QSOCZ6428ACZZ	6- 160	AE		C	
〃	7- 155	AE		C	
QSOCZ6440ACZZ	6- 161	AG		C	
〃	7- 156	AG		C	
QSW-Z1045ACZZ	10- 8	AG		B	
〔R〕					
RALMB5006SCZZ	6- 1	AD		B	
〃	7- 1	AD		B	
RC-AZFS0H224Z	6- 24	AM		C	
〃	7- 24	AM		C	
RCiLC5030BCZZ	7- 73	AF	N	C	
RCiLZ5023BCZZ	7- 74	AH		C	
〃	7- 75	AH		C	
RCiLZ5029CHZZ	6- 81	AR	N	C	
〃	6- 82	AR	N	C	
RCORF5002BCZZ	6- 79	AB		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
RCORF5002BCZZ	6- 80	AB		C	
〃	7- 72	AB		C	
RCRSP5019BCZZ	6- 159	AD		B	
〃	7- 154	AD		B	
RCRSZ5017BCZZ	6- 158	AD		B	
〃	7- 153	AD		B	
RMOTS5051BCZZ	4- 2	AU	N	B	
RMOTS5053BCZZ	2- 14	AV	N	B	
RMOTZ5042BCZZ	3- 18	AV		B	
RMOTZ5043BCZZ	2- 15	AV		B	
RMPTC4102QCKB	6- 142	AC		B	
〃	7- 137	AC		B	
RMPTC4103QCKB	6- 148	AC		B	
〃	7- 143	AC		B	
RMPTC8102QCKB	6- 146	AD		B	
〃	7- 141	AD		B	
RMPTC8103QCKB	6- 143	AD		B	
〃	6- 144	AD		B	
〃	6- 145	AD		B	
〃	6- 147	AD		B	
〃	7- 138	AD		B	
〃	7- 139	AD		B	
〃	7- 140	AD		B	
〃	7- 142	AD		B	
RMPTC8153QCKB	6- 149	AD		B	
〃	7- 144	AD		B	
RVR-M5213QCN4	6- 157	AG		B	
〃	7- 152	AG		B	
〔S〕					
SPAKA5671CHZZ	5- 16	AE	N	D	
SPAKA5671HHZZ	5- 16	——	N	D	
SPAKA5677BCZZ	5- 10	AD		D	
SPAKA5677HHZZ	5- 10	AC	N	D	
SPAKA5678BCZZ	5- 2	AE		D	
SPAKA5678HHZZ	5- 2	AA	N	D	
SPAKG5770CHZZ	5- 6	AW	N	D	
SPAKG5770HHZZ	5- 6	AQ	N	D	
SPAKX5675BCZZ	5- 9	AK		D	
SPAKX5675HHZZ	5- 9	AK	N	D	
SPAKX5676BCZZ	5- 7	AK		D	
SPAKX5676HHZZ	5- 7	AK	N	D	
SSAKH0001JHZZ	5- 8	AE	N	D	
SSAKH0002JHZZ	5- 11	AA	N	D	
SSAKH0004FCZZ	5- 8	AD		D	
SSAKH1020CCZZ	5- 11	AA		D	
SSAKH5012CHZZ	5- 13	AB		D	
SSAKH5012HHZZ	5- 13	AA	N	D	
〔T〕					
TCAUH5051BCZZ	1- 26	AA		C	
TCAUH5051HHZZ	1- 26	AA	N	B	
TCAUH5057BCZZ	5- 5	AA		C	
TCAUH5059BCZZ	5- 5	AA		C	
TCAUH5059HHZZ	5- 5	AA	N	C	
TiNSE5488CHZZ	5- 14	AS	N	D	
TiNSE5502CHZZ	5- 14	AV	N	D	
TiNSE5505HHZZ	5- 14	AX	N	D	
TiNSG5503CHZZ	5- 14	AX	N	D	
TiNSG5503HHZZ	5- 14	AP	N	D	
TiNSK5501CHZZ	5- 14	AV	N	D	
TLABM5163HHZZ	5- 17	AC	N	C	
TLABZ5125CHZZ	5- 15	AB	N	C	
〔U〕					
UBNDA1008CCZZ	5- 12	AA		C	
UBNDA5000HHZZ	5- 12	AA	N	C	
〔V〕					
VCEAGU1CW108M	6- 27	AD		C	
〃	7- 27	AD		C	
VCEAGU1HW225M	6- 19	AA		C	
〃	7- 19	AA		C	
VCEAGU1HW228M	6- 13	AH		C	
〃	7- 13	AH		C	
VCEAGU1VW477M	6- 26	AD		C	
〃	7- 26	AD		C	
VCKYPU1HB101K	6- 21	AA		C	
〃	6- 22	AA		C	
〃	7- 21	AA		C	
〃	7- 22	AA		C	
VCKYPU1HB102K	6- 3	AA		C	
〃	6- 6	AA		C	
〃	6- 17	AA		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VCKYPU1HB102K	6- 20	AA		C	
〃	6- 23	AA		C	
〃	6- 25	AA		C	
〃	6- 28	AA		C	
〃	6- 29	AA		C	
〃	7- 3	AA		C	
〃	7- 6	AA		C	
〃	7- 17	AA		C	
〃	7- 20	AA		C	
〃	7- 23	AA		C	
〃	7- 25	AA		C	
〃	7- 28	AA		C	
〃	7- 29	AA		C	
VCKYPU1HF223Z	6- 2	AA		C	
〃	6- 7	AA		C	
〃	6- 9	AA		C	
〃	6- 10	AA		C	
〃	6- 12	AA		C	
〃	6- 15	AA		C	
〃	6- 16	AA		C	
〃	6- 18	AA		C	
〃	7- 2	AA		C	
〃	7- 7	AA		C	
〃	7- 9	AA		C	
〃	7- 10	AA		C	
〃	7- 12	AA		C	
〃	7- 15	AA		C	
〃	7- 16	AA		C	
〃	7- 18	AA		C	
VCKYPU1HF473Z	6- 8	AB		C	
〃	7- 8	AB		C	
VCQYNU1HM104K	6- 4	AB		C	
〃	6- 11	AB		C	
〃	6- 14	AB		C	
〃	7- 4	AB		C	
〃	7- 11	AB		C	
〃	7- 14	AB		C	
VCSAVU1AE106M	6- 5	AC	N	C	
〃	7- 5	AC	N	C	
VHDDSS133HV-1	6- 45	AA		B	
〃	6- 46	AA		B	
〃	6- 47	AA		B	
〃	6- 48	AA		B	
〃	6- 49	AA		B	
〃	6- 50	AA		B	
〃	6- 52	AA		B	
〃	6- 54	AA		B	
〃	6- 57	AA		B	
〃	6- 58	AA		B	
〃	6- 59	AA		B	
〃	7- 46	AA		B	
〃	7- 48	AA		B	
〃	7- 51	AA		B	
〃	7- 52	AA		B	
〃	7- 53	AA		B	
〃	7- 157	AA		B	
〃	10- 2	AA		B	
〃	10- 3	AA		B	
〃	10- 4	AA		B	
〃	10- 5	AA		B	
〃	10- 6	AA		B	
〃	10- 7	AA		B	
VHDRBV401F/-1	6- 62	AF		B	
〃	7- 56	AF		B	
VHDRU3M////-1	6- 56	AC		B	
〃	6- 61	AC		B	
〃	7- 50	AC		B	
〃	7- 55	AC		B	
VHD1SR124-200	6- 42	AB		B	
〃	7- 42	AB		B	
VHD10E1N///-1	6- 36	AB		B	
〃	6- 39	AB		B	
〃	6- 43	AB		B	
〃	6- 44	AB		B	
〃	7- 36	AB		B	
〃	7- 39	AB		B	
〃	7- 43	AB		B	
〃	7- 44	AB		B	
VHEHZ3B1///-1	6- 53	AB		B	
〃	7- 47	AB		B	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VHERD12EB//-1	6- 51	AD		B	
〃	7- 45	AD		B	
VHERD15EB2/-1	6- 60	AA		B	
〃	7- 54	AA		B	
VHERD20EB3/-1	6- 38	AB		B	
〃	6- 40	AB		B	
〃	7- 38	AB		B	
〃	7- 40	AB		B	
VHERD30FB2/-1	6- 37	AC		B	
〃	6- 41	AC		B	
〃	7- 37	AC		B	
〃	7- 41	AC		B	
VHERD5.6EB2-1	6- 55	AB		B	
〃	7- 49	AB		B	
VHiD80C42-151	7- 63	AW	N	B	
VHiiR2339//-1	6- 76	AG		B	
〃	7- 70	AG		B	
VHiLH531423-1	6- 72	AS	N	B	
VHiLZ92K47/-1	6- 74	AM	N	B	
〃	7- 68	AM	N	B	
VHiM54567//-1	6- 65	AL		B	
〃	6- 67	AL		B	
〃	6- 68	AL		B	
〃	6- 71	AL		B	
〃	7- 59	AL		B	
〃	7- 61	AL		B	
〃	7- 62	AL		B	
〃	7- 65	AL		B	
VHiSN74LS07-1	6- 66	AK		B	
〃	7- 60	AK		B	
VHiSTA402A/-1	6- 70	AL		B	
〃	7- 64	AL		B	
VHiSTR20005-1	6- 77	AQ		B	
〃	7- 71	AQ		B	
VHiTC5563L15L	6- 73	AU		B	
〃	7- 67	AU		B	
VHi27512B401A	7- 66	BN	N	B	
VHi5L8042-154	6- 69	AR	N	B	
VHi63B03Y//-1	6- 75	AY		B	
〃	7- 69	AY		B	
VHPGP1S52//-1	11- 6	AF		B	
VRD-HT2EY121J	11- 5	AA		C	
VRD-HT2EY510J	6- 141	AA	N	C	
〃	7- 136	AA	N	C	
VRD-HT2HY122J	6- 135	AA	N	C	
VRD-HT2HY332J	6- 138	AA		C	
〃	7- 133	AA		C	
VRD-HT2HY390J	6- 87	AA		C	
VRD-HT2HY394J	6- 128	AA		C	
〃	7- 122	AA		C	
VRD-RC2EY101J	6- 89	AA		C	
〃	6- 132	AA		C	
〃	7- 83	AA		C	
〃	7- 126	AA		C	
VRD-RC2EY102J	6- 97	AA		C	
〃	6- 99	AA		C	
〃	6- 101	AA		C	
〃	6- 103	AA		C	
〃	6- 104	AA		C	
〃	6- 105	AA		C	
〃	6- 107	AA		C	
〃	6- 125	AA		C	
〃	6- 126	AA		C	
〃	7- 91	AA		C	
〃	7- 93	AA		C	
〃	7- 95	AA		C	
〃	7- 97	AA		C	
〃	7- 98	AA		C	
〃	7- 99	AA		C	
〃	7- 101	AA		C	
〃	7- 119	AA		C	
〃	7- 120	AA		C	
VRD-RC2EY103J	6- 116	AA		C	
〃	6- 117	AA		C	
〃	6- 131	AA		C	
〃	7- 110	AA		C	
〃	7- 111	AA		C	
〃	7- 125	AA		C	
VRD-RC2EY104J	6- 106	AA		C	
〃	6- 121	AA		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VRD-RC2EY104J	6-139	AA		C	
〃	7-100	AA		C	
〃	7-115	AA		C	
〃	7-134	AA		C	
VRD-RC2EY151J	6-136	AA		C	
〃	7-131	AA		C	
VRD-RC2EY153J	6-111	AA		C	
〃	6-112	AA		C	
〃	7-105	AA		C	
〃	7-106	AA		C	
VRD-RC2EY221J	6-129	AA		C	
〃	7-123	AA		C	
VRD-RC2EY222J	6-88	AA		C	
〃	6-114	AA		C	
〃	6-133	AA		C	
〃	7-82	AA		C	
〃	7-108	AA		C	
〃	7-127	AA		C	
VRD-RC2EY242J	6-115	AA		C	
〃	7-109	AA		C	
〃	7-129	AA		C	
〃	7-130	AA		C	
VRD-RC2EY331J	6-137	AA		C	
〃	7-132	AA		C	
VRD-RC2EY332J	6-124	AA		C	
〃	7-118	AA		C	
VRD-RC2EY333J	6-118	AA		C	
〃	7-112	AA		C	
VRD-RC2EY362J	6-130	AA		C	
〃	7-124	AA		C	
VRD-RC2EY391J	6-91	AA		C	
〃	6-92	AA		C	
〃	6-93	AA		C	
〃	6-94	AA		C	
〃	6-95	AA		C	
〃	6-119	AA		C	
〃	6-134	AA		C	
〃	7-85	AA		C	
〃	7-86	AA		C	
〃	7-87	AA		C	
〃	7-88	AA		C	
〃	7-89	AA		C	
〃	7-113	AA		C	
〃	7-128	AA		C	
VRD-RC2EY392J	6-108	AA		C	
〃	7-102	AA		C	
VRD-RC2EY472J	6-83	AA		C	
〃	6-85	AA		C	
〃	6-96	AA		C	
〃	6-98	AA		C	
〃	6-100	AA		C	
〃	6-102	AA		C	
〃	6-110	AA		C	
〃	6-113	AA		C	
〃	6-122	AA		C	
〃	6-123	AA		C	
〃	6-127	AA		C	
〃	7-76	AA		C	
〃	7-78	AA		C	
〃	7-90	AA		C	
〃	7-92	AA		C	
〃	7-94	AA		C	
〃	7-96	AA		C	
〃	7-104	AA		C	
〃	7-107	AA		C	
〃	7-116	AA		C	
〃	7-117	AA		C	
〃	7-121	AA		C	
VRD-RC2EY682J	6-120	AA		C	
〃	7-114	AA		C	
VRD-RC2EY750J	7-80	AA		C	
〃	7-81	AA		C	
VRD-RC2EY821J	6-86	AA		C	
〃	6-109	AA		C	
〃	7-79	AA		C	
〃	7-103	AA		C	
VRD-RC2EY822J	6-84	AA		C	
〃	7-77	AA		C	
VRS-HT3AAR22J	6-90	AA	N	C	
VRS-HT3DA102J	6-140	AA	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VRS-HT3DA102J	7-135	AA	N	C	
VRS-ST3ABR22K	7-84	AA		C	
VSJC501-///-1	6-152	AB		B	
〃	6-153	AB		B	
〃	6-154	AB		B	
〃	6-155	AB		B	
〃	7-147	AB		B	
〃	7-148	AB		B	
〃	7-149	AB		B	
〃	7-150	AB		B	
VS2SA675-//-1	6-151	AD		B	
〃	7-146	AD		B	
VS2SB1258-/-1	6-156	AE		B	
〃	7-151	AE		B	
VS2SD1769-/-1	6-150	AE		B	
〃	7-145	AE		B	
〔X〕					
XBPBZ40P08K00	1-B06	AA		C	
XBPSD20P06000	2-B07	AA		C	
XBPSD30P06KS0	1-B03	AA		C	
〃	1-B04	AA		C	
〃	1-B05	AA		C	
〃	1-B10	AA		C	
〃	2-B05	AA		C	
〃	2-B06	AA		C	
〃	2-B10	AA		C	
〃	2-B11	AA		C	
〃	2-B12	AA		C	
〃	2-B13	AA		C	
〃	2-B17	AA		C	
〃	2-B18	AA		C	
〃	3-B01	AA		C	
XBPSD30P08KS0	8-13	AA		C	
XBPSD30P10KS0	1-B13	AB		C	
XBPSD30W06KS0	3-B02	AA		C	
〃	3-B03	AA		C	
〃	3-B04	AA		C	
〃	3-B05	AA		C	
〃	3-B08	AA		C	
〃	3-B09	AA		C	
〃	3-B10	AA		C	
〃	3-B11	AA		C	
〃	3-B12	AA		C	
〃	3-B15	AA		C	
〃	3-B16	AA		C	
XBPSD40P08KS0	2-B08	AA		C	
〃	2-B09	AA		C	
〃	2-B14	AA		C	
〃	2-B15	AA		C	
XBPSD50P25000	2-B16	AA		C	
XCPSD30P08000	1-B15	AA		C	
XNESD30-24000	3-N01	AA		C	
XRESJ20-04000	3-E03	AA		C	
〃	3-E06	AA		C	
〃	4-E02	AA		C	
XRESJ20-05000	3-E05	AA		C	
XRESJ30-06000	3-E02	AB		C	
〃	4-E01	AB		C	
XRESJ40-06000	2-E03	AA		C	
〃	2-E04	AA		C	
〃	2-E05	AA		C	
〃	3-E01	AA		C	
〃	3-E04	AA		C	
XRESJ60-08000	2-E01	AA		C	
〃	2-E02	AA		C	
XUPSD40P12000	1-B07	AA		C	
〃	1-B08	AA		C	
〃	1-B09	AA		C	
〃	1-B11	AA		C	
〃	1-B12	AA		C	
XUPSD40P25000	1-B01	AA	N	C	
〃	1-B02	AA	N	C	
XWHSD40-08100	1-W01	AA		C	
〃	1-W02	AA		C	
XWHSD50-08100	2-W01	AA		C	
XXXSP26L04000	3-B06	AA		C	
〃	3-B07	AA		C	
XXXSP40L08000	2-B01	AB		C	
〃	2-B02	AB		C	
〃	2-B03	AB		C	

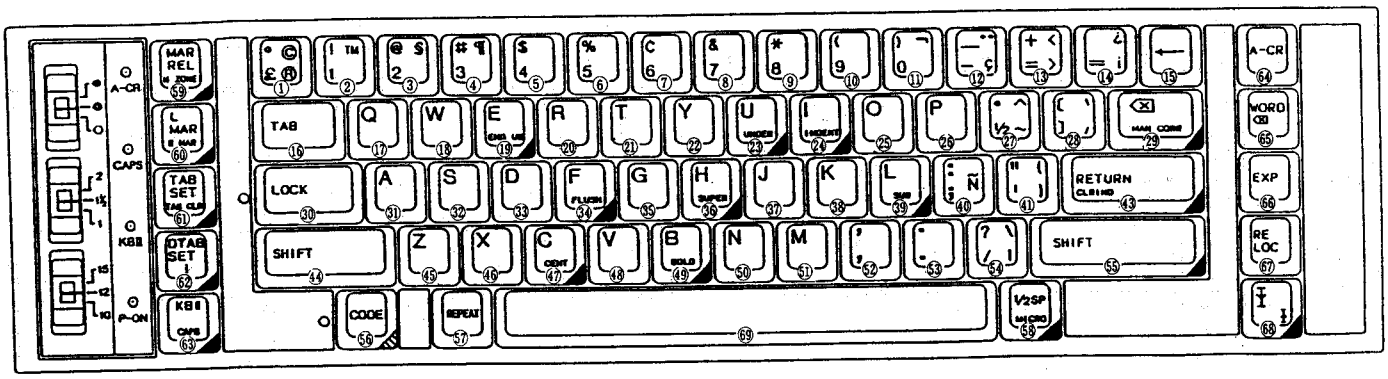
[redacted]

XQ-315U

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
XXXSP40L08000	2-B04	AB		C	
【0】					
0EN1002-0028/	12- 24	AA		C	
0EN1002-0066/	12- 27	AA		C	
0EN1003-0203/	12- 22	AC		C	
0EN1011-0032/	12- 25	AA		C	
0EN1012-4503/	12- 26	AA		C	
0EN3192-0028/	12- 30	AH		C	
0EN3193-0044/	12- 31	AH		C	
0EN4105-5003/	12- 29	AY		E	
0EN4105-5004/	12- 29	AZ		E	
0EN8210-0004/	12- 7	AA		C	
0EN8210-0015/	12- 5	AB		C	
//	12- 11	AB		C	
0EN8210-0020/	12- 3	AB		C	
//	12- 9	AB		C	
0EN8230-0008/	12- 19	AC		C	
0EN8230-0013/	12- 19	AD	N	C	
0EN8300-0070/	12- 15	AE		C	
0EN8300-0071/	12- 17	AD		C	
0EN8300-0074/	12- 16	AD		C	
0EN8300-0075/	12- 14	AD		C	
0EN8300-0077/	12- 1	AB		C	
0EN8300-0078/	12- 6	AB		D	
0EN8300-0090/	12- 15	AE		C	
0EN8300-0091/	12- 17	AD		C	
0EN8300-0095/	12- 6	AB		D	
0EN8300-0110/	12- 1	AB		C	
0EN8300-0111/	12- 16	AE	N	C	
0EN8300-0114/	12- 14	AE		C	
0EN8300-0115/	12- 13	AE		C	
0EN8300-0116/	12- 12	AC		C	
0EN8300-0120/	12- 16	AE		C	
0EN8330-0021/	12- 2	AA		C	
//	12- 4	AA		C	
//	12- 8	AA		C	
//	12- 10	AA		C	
0EN8330-0022/	12- 21	AA		C	
0EN8330-0024/	12- 18	AA		C	
0EN8350-0234/	12- 20	AA		C	
0EN8350-0247/	12- 23	AB		C	
0EN8610-0003/	12- 28	AA	N	C	
0FYGSK801-2DS	8- 10	AF	N	C	
0FYPT-F7021//	8- 1	AZ	N	B	
0FYPT-F7022//	8- 1	AZ	N	B	
0FYPT-F7024//	8- 1	AY	N	B	
0FYPT-Z6914//	8- 1	AY	N	B	
0FYSU10V10030	8- 6	AG	N	C	
0FYSW-F7021//	8- 2	AH	N	B	
0FYSW-Z6914//	8- 2	AH	N	B	
0FY5ST800-D//	8- 8	AE	N	A	
0FY5TT1.6////	8- 8	AE	N	A	
0FY572018-D//	8- 9	AB	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	

Key top : Type-A



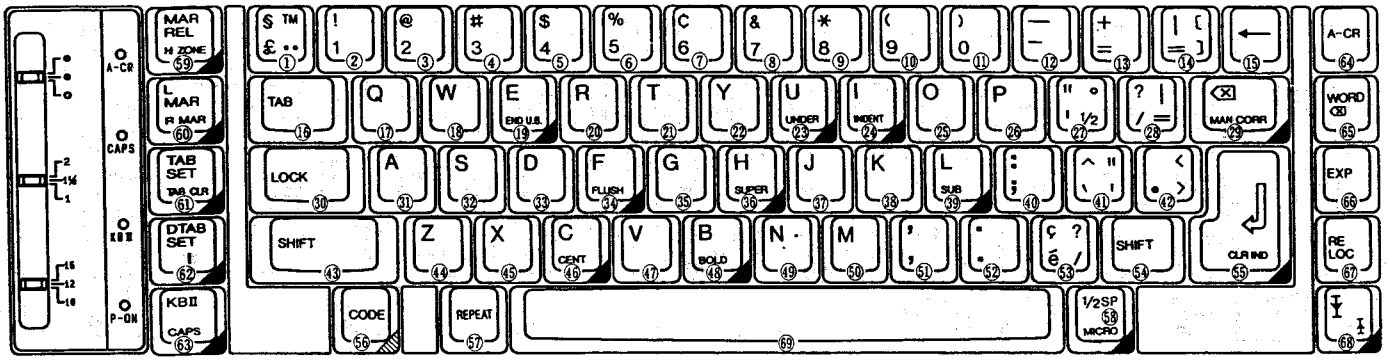
	BASE	LEGEND
	GRAY HU2422T	BLACK
	GRAY HU2422T	BLACK
		BROWN
	GRAY HU2422T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84074-001/	AC	DD	N	C	Key top キートップ
2	0EN84074-002/	AC	DD	N	C	Key top キートップ
3	0EN84074-003/	AC	DD	N	C	Key top キートップ
4	0EN84074-004/	AC	DD	N	C	Key top キートップ
5	0EN84074-005/	AC	DD	N	C	Key top キートップ
6	0EN84074-006/	AC	DD	N	C	Key top キートップ
7	0EN84074-007/	AC	DD	N	C	Key top キートップ
8	0EN84074-008/	AC	DD	N	C	Key top キートップ
9	0EN84074-009/	AC	DD	N	C	Key top キートップ
10	0EN84074-010/	AC	DD	N	C	Key top キートップ
11	0EN84074-011/	AC	DD	N	C	Key top キートップ
12	0EN84074-012/	AC	DD	N	C	Key top キートップ
13	0EN84074-013/	AC	DD	N	C	Key top キートップ
14	0EN84074-014/	AC	DD	N	C	Key top キートップ
15	0EN84074-015/	AC	DD	N	C	Key top キートップ
16	0EN84074-016/	AC	DE	N	C	Key top キートップ
17	0EN84074-017/	AC	DD	N	C	Key top キートップ
18	0EN84074-018/	AC	DD	N	C	Key top キートップ
19	0EN84074-019/	AD	DF	N	C	Key top キートップ
20	0EN84074-020/	AC	DD	N	C	Key top キートップ
21	0EN84074-021/	AC	DD	N	C	Key top キートップ
22	0EN84074-022/	AC	DD	N	C	Key top キートップ
23	0EN84074-023/	AD	DF	N	C	Key top キートップ
24	0EN84074-024/	AD	DF	N	C	Key top キートップ
25	0EN84074-025/	AC	DD	N	C	Key top キートップ
26	0EN84074-026/	AC	DD	N	C	Key top キートップ
27	0EN84074-027/	AC	DD	N	C	Key top キートップ
28	0EN84074-028/	AC	DD	N	C	Key top キートップ
29	0EN84074-029/	AD	DG	N	C	Key top キートップ
30	0EN84074-030/	AC	DE	N	C	Key top キートップ
31	0EN84074-031/	AC	DD	N	C	Key top キートップ
32	0EN84074-032/	AC	DD	N	C	Key top キートップ
33	0EN84074-033/	AC	DD	N	C	Key top キートップ
34	0EN84074-034/	AD	DF	N	C	Key top キートップ
35	0EN84074-035/	AC	DD	N	C	Key top キートップ
36	0EN84074-036/	AD	DF	N	C	Key top キートップ
37	0EN84074-037/	AC	DD	N	C	Key top キートップ
38	0EN84074-038/	AC	DD	N	C	Key top キートップ
39	0EN84074-039/	AD	DF	N	C	Key top キートップ
40	0EN84074-040/	AC	DD	N	C	Key top キートップ
41	0EN84074-041/	AC	DD	N	C	Key top キートップ
43	0EN84074-043/	AD	DG	N	C	Key top キートップ
44	0EN84074-044/	AC	DE	N	C	Key top キートップ
45	0EN84074-045/	AC	DD	N	C	Key top キートップ
46	0EN84074-046/	AC	DD	N	C	Key top キートップ
47	0EN84074-047/	AD	DF	N	C	Key top キートップ
48	0EN84074-048/	AC	DD	N	C	Key top キートップ
49	0EN84074-049/	AD	DF	N	C	Key top キートップ
50	0EN84074-050/	AC	DD	N	C	Key top キートップ
51	0EN84074-051/	AC	DD	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
52	0EN84074-052/	AC	DD	N	C	Key top キートップ
53	0EN84074-053/	AC	DD	N	C	Key top キートップ
54	0EN84074-054/	AC	DD	N	C	Key top キートップ
55	0EN84074-055/	AC	DE	N	C	Key top キートップ
56	0EN84074-056/	AC	DD	N	C	Key top キートップ
57	0EN84074-057/	AC	DD	N	C	Key top キートップ
58	0EN84074-058/	AD	DF	N	C	Key top キートップ
59	0EN84074-059/	AD	DF	N	C	Key top キートップ
60	0EN84074-060/	AD	DF	N	C	Key top キートップ
61	0EN84074-061/	AD	DF	N	C	Key top キートップ
62	0EN84074-062/	AD	DF	N	C	Key top キートップ
63	0EN84074-063/	AD	DF	N	C	Key top キートップ
64	0EN84074-064/	AC	DD	N	C	Key top キートップ
65	0EN84074-065/	AC	DD	N	C	Key top キートップ
66	0EN84074-066/	AC	DD	N	C	Key top キートップ
67	0EN84074-067/	AC	DD	N	C	Key top キートップ
68	0EN84074-068/	AD	DF	N	C	Key top キートップ
69	0EN8300-0059/	AE	DK	N	C	Key top キートップ

[redacted]
XQ-315U

Key top : Type-C

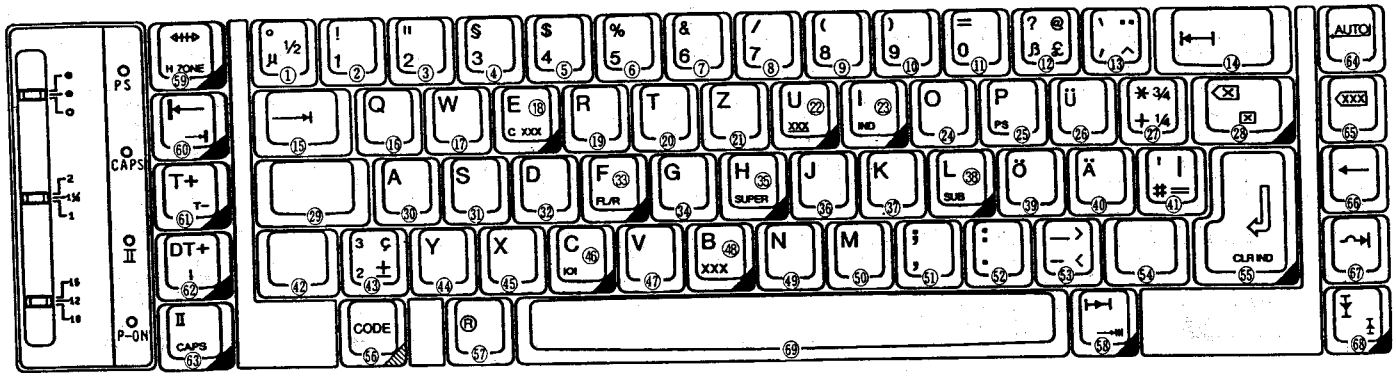


	BASE	LEGEND
	L.GRAY HU2452T	BLACK
	L.GRAY HU2452T	BLACK / BROWN
	L.GRAY HU2452T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84582-001/	A C	D D	N	C	Key top キートップ
2	0EN84582-002/	A C	D D	N	C	Key top キートップ
3	0EN84582-003/	A C	D D	N	C	Key top キートップ
4	0EN84582-004/	A C	D D	N	C	Key top キートップ
5	0EN84582-005/	A C	D D	N	C	Key top キートップ
6	0EN84582-006/	A C	D D	N	C	Key top キートップ
7	0EN84582-007/	A C	D D	N	C	Key top キートップ
8	0EN84582-008/	A C	D D	N	C	Key top キートップ
9	0EN84582-009/	A C	D D	N	C	Key top キートップ
10	0EN84582-010/	A C	D D	N	C	Key top キートップ
11	0EN84582-011/	A C	D D	N	C	Key top キートップ
12	0EN84582-012/	A C	D D	N	C	Key top キートップ
13	0EN84582-013/	A C	D D	N	C	Key top キートップ
14	0EN84582-014/	A C	D D	N	C	Key top キートップ
15	0EN84582-015/	A C	D D	N	C	Key top キートップ
16	0EN84582-016/	A C	D E	N	C	Key top キートップ
17	0EN84582-017/	A C	D D	N	C	Key top キートップ
18	0EN84582-018/	A C	D D	N	C	Key top キートップ
19	0EN84582-019/	A D	D F	N	C	Key top キートップ
20	0EN84582-020/	A C	D D	N	C	Key top キートップ
21	0EN84582-021/	A C	D D	N	C	Key top キートップ
22	0EN84582-022/	A C	D D	N	C	Key top キートップ
23	0EN84582-023/	A D	D F	N	C	Key top キートップ
24	0EN84582-024/	A D	D F	N	C	Key top キートップ
25	0EN84582-025/	A C	D D	N	C	Key top キートップ
26	0EN84582-026/	A C	D D	N	C	Key top キートップ
27	0EN84582-027/	A C	D D	N	C	Key top キートップ
28	0EN84582-028/	A C	D D	N	C	Key top キートップ
29	0EN84582-029/	A D	D G	N	C	Key top キートップ
30	0EN84582-030/	A C	D E	N	C	Key top キートップ
31	0EN84582-031/	A C	D D	N	C	Key top キートップ
32	0EN84582-032/	A C	D D	N	C	Key top キートップ
33	0EN84582-033/	A C	D D	N	C	Key top キートップ
34	0EN84582-034/	A D	D F	N	C	Key top キートップ
35	0EN84582-035/	A C	D D	N	C	Key top キートップ
36	0EN84582-036/	A D	D F	N	C	Key top キートップ
37	0EN84582-037/	A C	D D	N	C	Key top キートップ
38	0EN84582-038/	A C	D D	N	C	Key top キートップ
39	0EN84582-039/	A D	D F	N	C	Key top キートップ
40	0EN84582-040/	A C	D D	N	C	Key top キートップ
41	0EN84582-041/	A C	D D	N	C	Key top キートップ
42	0EN84582-042/	A C	D D	N	C	Key top キートップ
43	0EN84582-043/	A C	D E	N	C	Key top キートップ
44	0EN84582-044/	A C	D D	N	C	Key top キートップ
45	0EN84582-045/	A C	D D	N	C	Key top キートップ
46	0EN84582-046/	A D	D F	N	C	Key top キートップ
47	0EN84582-047/	A C	D D	N	C	Key top キートップ
48	0EN84582-048/	A D	D F	N	C	Key top キートップ
49	0EN84582-049/	A C	D D	N	C	Key top キートップ
50	0EN84582-050/	A C	D D	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
51	0EN84582-051/	A C	D D	N	C	Key top キートップ
52	0EN84582-052/	A C	D D	N	C	Key top キートップ
53	0EN84582-053/	A C	D D	N	C	Key top キートップ
54	0EN84582-054/	A C	D E	N	C	Key top キートップ
55	0EN84582-055/	A G	D R	N	C	Key top キートップ
56	0EN84582-056/	A C	D D	N	C	Key top キートップ
57	0EN84582-057/	A C	D D	N	C	Key top キートップ
58	0EN84582-058/	A D	D F	N	C	Key top キートップ
59	0EN84582-059/	A D	D F	N	C	Key top キートップ
60	0EN84582-060/	A D	D F	N	C	Key top キートップ
61	0EN84582-061/	A D	D F	N	C	Key top キートップ
62	0EN84582-062/	A D	D F	N	C	Key top キートップ
63	0EN84582-063/	A D	D F	N	C	Key top キートップ
64	0EN84582-064/	A C	D D	N	C	Key top キートップ
65	0EN84582-065/	A C	D D	N	C	Key top キートップ
66	0EN84582-066/	A C	D D	N	C	Key top キートップ
67	0EN84582-067/	A C	D D	N	C	Key top キートップ
68	0EN84582-068/	A D	D F	N	C	Key top キートップ
69	0EN8300-0059/	A E	D K		C	Key top キートップ

Key top : Type-B•E



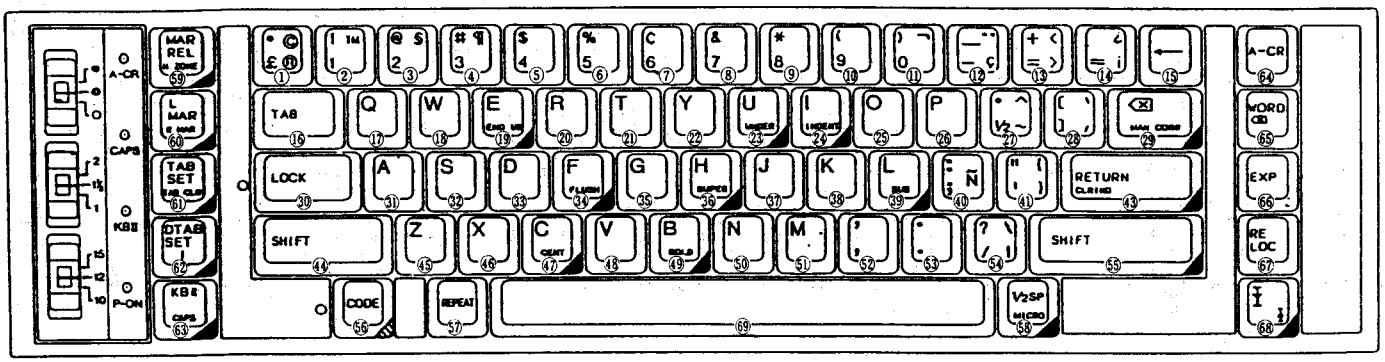
	BASE	LEGEND
	L. GRAY HU2452T	BLACK
	L. GRAY HU2452T	BLACK
	L. GRAY HU2452T	BROWN
	L. GRAY HU2452T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84081-001/	AC	DD	N	C	Key top キートップ
2	0EN84081-002/	AC	DD	N	C	Key top キートップ
3	0EN84081-003/	AC	DD	N	C	Key top キートップ
4	0EN84081-004/	AC	DD	N	C	Key top キートップ
5	0EN84081-005/	AC	DD	N	C	Key top キートップ
6	0EN84081-006/	AC	DD	N	C	Key top キートップ
7	0EN84081-007/	AC	DD	N	C	Key top キートップ
8	0EN84081-008/	AC	DD	N	C	Key top キートップ
9	0EN84081-009/	AC	DD	N	C	Key top キートップ
10	0EN84081-010/	AC	DD	N	C	Key top キートップ
11	0EN84081-011/	AC	DD	N	C	Key top キートップ
12	0EN84081-012/	AC	DD	N	C	Key top キートップ
13	0EN84081-013/	AC	DD	N	C	Key top キートップ
14	0EN84081-014/	AC	DE	N	C	Key top キートップ
15	0EN84081-015/	AC	DE	N	C	Key top キートップ
16	0EN84081-016/	AC	DD	N	C	Key top キートップ
17	0EN84081-017/	AC	DD	N	C	Key top キートップ
18	0EN84081-018/	AD	DF	N	C	Key top キートップ
19	0EN84081-019/	AC	DD	N	C	Key top キートップ
20	0EN84081-020/	AC	DD	N	C	Key top キートップ
21	0EN84081-021/	AC	DD	N	C	Key top キートップ
22	0EN84081-022/	AD	DF	N	C	Key top キートップ
23	0EN84081-023/	AD	DF	N	C	Key top キートップ
24	0EN84081-024/	AC	DD	N	C	Key top キートップ
25	0EN84081-025/	AD	DF	N	C	Key top キートップ
26	0EN84081-026/	AC	DD	N	C	Key top キートップ
27	0EN84081-027/	AC	DD	N	C	Key top キートップ
28	0EN84081-028/	AD	DG	N	C	Key top キートップ
29	0EN84081-029/	AB	DC	N	C	Key top キートップ
30	0EN84081-030/	AC	DD	N	C	Key top キートップ
31	0EN84081-031/	AC	DD	N	C	Key top キートップ
32	0EN84081-032/	AC	DD	N	C	Key top キートップ
33	0EN84081-033/	AD	DF	N	C	Key top キートップ
34	0EN84081-034/	AC	DD	N	C	Key top キートップ
35	0EN84081-035/	AD	DF	N	C	Key top キートップ
36	0EN84081-036/	AC	DD	N	C	Key top キートップ
37	0EN84081-037/	AC	DD	N	C	Key top キートップ
38	0EN84081-038/	AD	DF	N	C	Key top キートップ
39	0EN84081-039/	AC	DD	N	C	Key top キートップ
40	0EN84081-040/	AC	DD	N	C	Key top キートップ
41	0EN84081-041/	AC	DD	N	C	Key top キートップ
42	0EN84081-042/	AB	DC	N	C	Key top キートップ
43	0EN84081-043/	AC	DD	N	C	Key top キートップ
44	0EN84081-044/	AC	DD	N	C	Key top キートップ
45	0EN84081-045/	AC	DD	N	C	Key top キートップ
46	0EN84081-046/	AD	DF	N	C	Key top キートップ
47	0EN84081-047/	AC	DD	N	C	Key top キートップ
48	0EN84081-048/	AD	DF	N	C	Key top キートップ
49	0EN84081-049/	AC	DD	N	C	Key top キートップ
50	0EN84081-050/	AC	DD	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
51	0EN84081-051/	AC	DD	N	C	Key top キートップ
52	0EN84081-052/	AC	DD	N	C	Key top キートップ
53	0EN84081-053/	AC	DD	N	C	Key top キートップ
54	0EN84081-054/	AB	DC	N	C	Key top キートップ
55	0EN84081-055/	AG	DR	N	C	Key top キートップ
56	0EN84081-056/	AC	DD	N	C	Key top キートップ
57	0EN84081-057/	AC	DD	N	C	Key top キートップ
58	0EN84081-058/	AD	DF	N	C	Key top キートップ
59	0EN84081-059/	AD	DF	N	C	Key top キートップ
60	0EN84081-060/	AD	DF	N	C	Key top キートップ
61	0EN84081-061/	AD	DF	N	C	Key top キートップ
62	0EN84081-062/	AD	DF	N	C	Key top キートップ
63	0EN84081-063/	AD	DF	N	C	Key top キートップ
64	0EN84081-064/	AC	DD	N	C	Key top キートップ
65	0EN84081-065/	AC	DD	N	C	Key top キートップ
66	0EN84081-066/	AC	DD	N	C	Key top キートップ
67	0EN84081-067/	AC	DD	N	C	Key top キートップ
68	0EN84081-068/	AD	DF	N	C	Key top キートップ
69	0EN8300-0059/	AE	DK		C	Key top キートップ

[redacted]
XQ-315U

Key top : Type-D

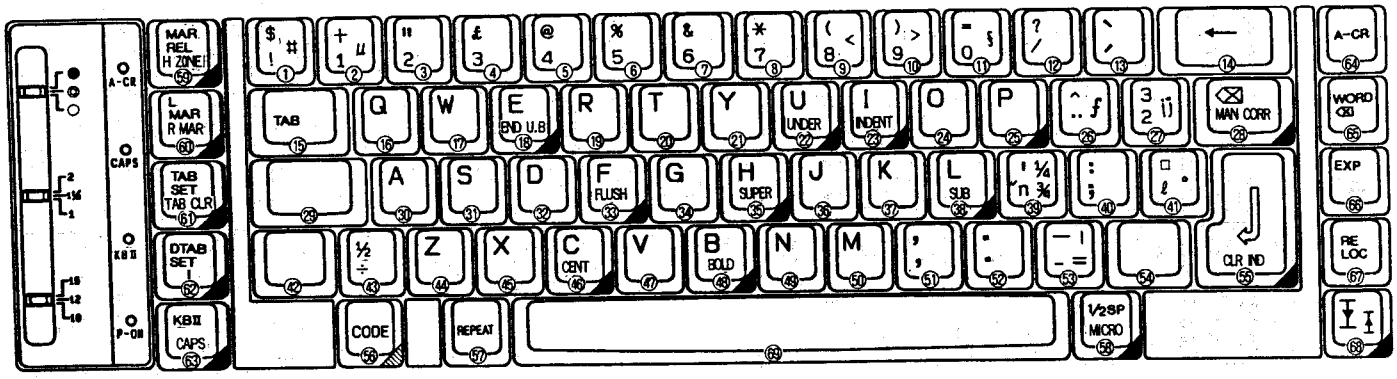


	BASE	LEGEND
	GRAY HU2452T	BLACK
	GRAY HU2452T	BLACK
		BROWN
	GRAY HU2452T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84174-001/	AC	DD	N	C	Key top キートップ
2	0EN84174-002/	AC	DD	N	C	Key top キートップ
3	0EN84174-003/	AC	DD	N	C	Key top キートップ
4	0EN84174-004/	AC	DD	N	C	Key top キートップ
5	0EN84174-005/	AC	DD	N	C	Key top キートップ
6	0EN84174-006/	AC	DD	N	C	Key top キートップ
7	0EN84174-007/	AC	DD	N	C	Key top キートップ
8	0EN84174-008/	AC	DD	N	C	Key top キートップ
9	0EN84174-009/	AC	DD	N	C	Key top キートップ
10	0EN84174-010/	AC	DD	N	C	Key top キートップ
11	0EN84174-011/	AC	DD	N	C	Key top キートップ
12	0EN84174-012/	AC	DD	N	C	Key top キートップ
13	0EN84174-013/	AC	DD	N	C	Key top キートップ
14	0EN84174-014/	AC	DD	N	C	Key top キートップ
15	0EN84174-015/	AC	DD	N	C	Key top キートップ
16	0EN84174-016/	AC	DE	N	C	Key top キートップ
17	0EN84174-017/	AC	DD	N	C	Key top キートップ
18	0EN84174-018/	AC	DD	N	C	Key top キートップ
19	0EN84174-019/	AD	DF	N	C	Key top キートップ
20	0EN84174-020/	AC	DD	N	C	Key top キートップ
21	0EN84174-021/	AC	DD	N	C	Key top キートップ
22	0EN84174-022/	AC	DD	N	C	Key top キートップ
23	0EN84174-023/	AD	DF	N	C	Key top キートップ
24	0EN84174-024/	AD	DF	N	C	Key top キートップ
25	0EN84174-025/	AC	DD	N	C	Key top キートップ
26	0EN84174-026/	AC	DD	N	C	Key top キートップ
27	0EN84174-027/	AC	DD	N	C	Key top キートップ
28	0EN84174-028/	AC	DD	N	C	Key top キートップ
29	0EN84174-029/	AD	DG	N	C	Key top キートップ
30	0EN84174-030/	AC	DE	N	C	Key top キートップ
31	0EN84174-031/	AC	DD	N	C	Key top キートップ
32	0EN84174-032/	AC	DD	N	C	Key top キートップ
33	0EN84174-033/	AC	DD	N	C	Key top キートップ
34	0EN84174-034/	AD	DF	N	C	Key top キートップ
35	0EN84174-035/	AC	DD	N	C	Key top キートップ
36	0EN84174-036/	AD	DF	N	C	Key top キートップ
37	0EN84174-037/	AC	DD	N	C	Key top キートップ
38	0EN84174-038/	AC	DD	N	C	Key top キートップ
39	0EN84174-039/	AD	DF	N	C	Key top キートップ
40	0EN84174-040/	AC	DD	N	C	Key top キートップ
41	0EN84174-041/	AC	DD	N	C	Key top キートップ
43	0EN84174-043/	AD	DG	N	C	Key top キートップ
44	0EN84174-044/	AC	DE	N	C	Key top キートップ
45	0EN84174-045/	AC	DD	N	C	Key top キートップ
46	0EN84174-046/	AC	DD	N	C	Key top キートップ
47	0EN84174-047/	AD	DF	N	C	Key top キートップ
48	0EN84174-048/	AC	DD	N	C	Key top キートップ
49	0EN84174-049/	AD	DF	N	C	Key top キートップ
50	0EN84174-050/	AC	DD	N	C	Key top キートップ
51	0EN84174-051/	AC	DD	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
52	0EN84174-052/	AC	DD	N	C	Key top キートップ
53	0EN84174-053/	AC	DD	N	C	Key top キートップ
54	0EN84174-054/	AC	DD	N	C	Key top キートップ
55	0EN84174-055/	AC	DE	N	C	Key top キートップ
56	0EN84174-056/	AC	DD	N	C	Key top キートップ
57	0EN84174-057/	AC	DD	N	C	Key top キートップ
58	0EN84174-058/	AD	DF	N	C	Key top キートップ
59	0EN84174-059/	AD	DF	N	C	Key top キートップ
60	0EN84174-060/	AD	DF	N	C	Key top キートップ
61	0EN84174-061/	AD	DF	N	C	Key top キートップ
62	0EN84174-062/	AD	DF	N	C	Key top キートップ
63	0EN84174-063/	AD	DF	N	C	Key top キートップ
64	0EN84174-064/	AC	DD	N	C	Key top キートップ
65	0EN84174-065/	AC	DD	N	C	Key top キートップ
66	0EN84174-066/	AC	DD	N	C	Key top キートップ
67	0EN84174-067/	AC	DD	N	C	Key top キートップ
68	0EN84174-068/	AD	DF	N	C	Key top キートップ
69	0EN8300-0059/	AE	DK	N	C	Key top キートップ

Key top : Type-F



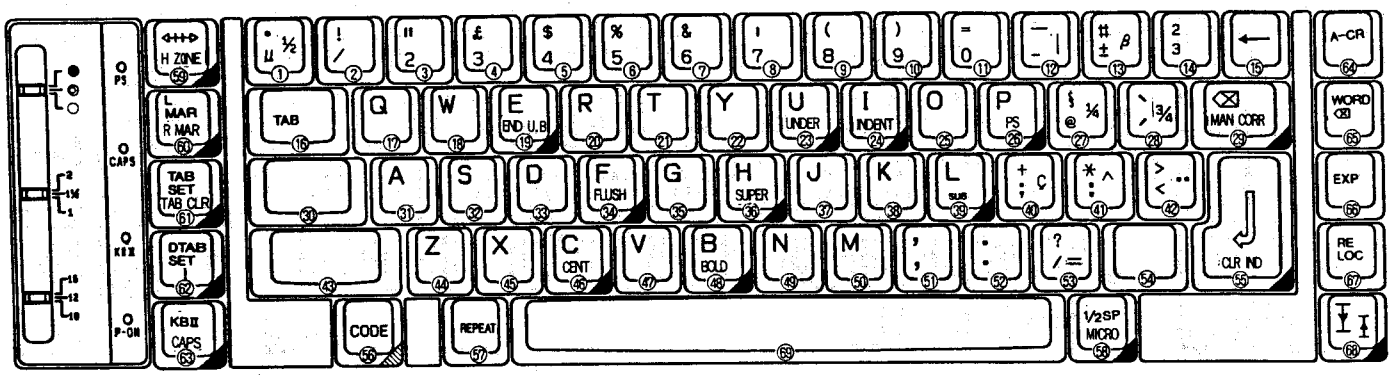
	BASE	LEGEND
	L. GRAY HU2452T	BLACK
	L. GRAY HU2452T	BLACK BROWN
	L. GRAY HU2452T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84381-001/	AC	DD	N	C	Key top キートップ
2	0EN84381-002/	AC	DD	N	C	Key top キートップ
3	0EN84381-003/	AC	DD	N	C	Key top キートップ
4	0EN84381-004/	AC	DD	N	C	Key top キートップ
5	0EN84381-005/	AC	DD	N	C	Key top キートップ
6	0EN84381-006/	AC	DD	N	C	Key top キートップ
7	0EN84381-007/	AC	DD	N	C	Key top キートップ
8	0EN84381-008/	AC	DD	N	C	Key top キートップ
9	0EN84381-009/	AC	DD	N	C	Key top キートップ
10	0EN84381-010/	AC	DD	N	C	Key top キートップ
11	0EN84381-011/	AC	DD	N	C	Key top キートップ
12	0EN84381-012/	AC	DD	N	C	Key top キートップ
13	0EN84381-013/	AC	DD	N	C	Key top キートップ
14	0EN84381-014/	AC	DE	N	C	Key top キートップ
15	0EN84381-015/	AC	DE	N	C	Key top キートップ
16	0EN84381-016/	AC	DD	N	C	Key top キートップ
17	0EN84381-017/	AC	DD	N	C	Key top キートップ
18	0EN84381-018/	AD	DF	N	C	Key top キートップ
19	0EN84381-019/	AC	DD	N	C	Key top キートップ
20	0EN84381-020/	AC	DD	N	C	Key top キートップ
21	0EN84381-021/	AC	DD	N	C	Key top キートップ
22	0EN84381-022/	AD	DF	N	C	Key top キートップ
23	0EN84381-023/	AD	DF	N	C	Key top キートップ
24	0EN84381-024/	AC	DD	N	C	Key top キートップ
25	0EN84381-025/	AC	DD	N	C	Key top キートップ
26	0EN84381-026/	AC	DD	N	C	Key top キートップ
27	0EN84381-027/	AC	DD	N	C	Key top キートップ
28	0EN84381-028/	AD	DG	N	C	Key top キートップ
29	0EN84381-029/	AB	DC	N	C	Key top キートップ
30	0EN84381-030/	AC	DD	N	C	Key top キートップ
31	0EN84381-031/	AC	DD	N	C	Key top キートップ
32	0EN84381-032/	AC	DD	N	C	Key top キートップ
33	0EN84381-033/	AD	DF	N	C	Key top キートップ
34	0EN84381-034/	AC	DD	N	C	Key top キートップ
35	0EN84381-035/	AD	DF	N	C	Key top キートップ
36	0EN84381-036/	AC	DD	N	C	Key top キートップ
37	0EN84381-037/	AC	DD	N	C	Key top キートップ
38	0EN84381-038/	AD	DF	N	C	Key top キートップ
39	0EN84381-039/	AC	DD	N	C	Key top キートップ
40	0EN84381-040/	AC	DD	N	C	Key top キートップ
41	0EN84381-041/	AC	DD	N	C	Key top キートップ
42	0EN84381-042/	AB	DC	N	C	Key top キートップ
43	0EN84381-043/	AC	DD	N	C	Key top キートップ
44	0EN84381-044/	AC	DD	N	C	Key top キートップ
45	0EN84381-045/	AC	DD	N	C	Key top キートップ
46	0EN84381-046/	AD	DF	N	C	Key top キートップ
47	0EN84381-047/	AC	DD	N	C	Key top キートップ
48	0EN84381-048/	AD	DF	N	C	Key top キートップ
49	0EN84381-049/	AC	DD	N	C	Key top キートップ
50	0EN84381-050/	AC	DD	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
51	0EN84381-051/	AC	DD	N	C	Key top キートップ
52	0EN84381-052/	AC	DD	N	C	Key top キートップ
53	0EN84381-053/	AC	DD	N	C	Key top キートップ
54	0EN84381-054/	AB	DC	N	C	Key top キートップ
55	0EN84381-055/	AG	DR	N	C	Key top キートップ
56	0EN84381-056/	AC	DD	N	C	Key top キートップ
57	0EN84381-057/	AC	DD	N	C	Key top キートップ
58	0EN84381-058/	AD	DF	N	C	Key top キートップ
59	0EN84381-059/	AD	DF	N	C	Key top キートップ
60	0EN84381-060/	AD	DF	N	C	Key top キートップ
61	0EN84381-061/	AD	DF	N	C	Key top キートップ
62	0EN84381-062/	AD	DF	N	C	Key top キートップ
63	0EN84381-063/	AD	DF	N	C	Key top キートップ
64	0EN84381-064/	AC	DD	N	C	Key top キートップ
65	0EN84381-065/	AC	DD	N	C	Key top キートップ
66	0EN84381-066/	AC	DD	N	C	Key top キートップ
67	0EN84381-067/	AC	DD	N	C	Key top キートップ
68	0EN84381-068/	AD	DF	N	C	Key top キートップ
69	0EN8300-0059/	AE	DK		C	Key top キートップ

[redacted]
XQ-315U

Key top : Type-G,H



	BASE.	LEGEND
	L. GRAY HU2452T	BLACK
	L. GRAY HU2452T	BLACK
	L. GRAY HU2452T	BROWN
	L. GRAY HU2452T	BROWN

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
1	0EN84382-001/	AC	DD	N	C	Key top キートップ
2	0EN84382-002/	AC	DD	N	C	Key top キートップ
3	0EN84382-003/	AC	DD	N	C	Key top キートップ
4	0EN84382-004/	AC	DD	N	C	Key top キートップ
5	0EN84382-005/	AC	DD	N	C	Key top キートップ
6	0EN84382-006/	AC	DD	N	C	Key top キートップ
7	0EN84382-007/	AC	DD	N	C	Key top キートップ
8	0EN84382-008/	AC	DD	N	C	Key top キートップ
9	0EN84382-009/	AC	DD	N	C	Key top キートップ
10	0EN84382-010/	AC	DD	N	C	Key top キートップ
11	0EN84382-011/	AC	DD	N	C	Key top キートップ
12	0EN84382-012/	AC	DD	N	C	Key top キートップ
13	0EN84382-013/	AC	DD	N	C	Key top キートップ
14	0EN84382-014/	AC	DD	N	C	Key top キートップ
15	0EN84382-015/	AC	DD	N	C	Key top キートップ
16	0EN84382-016/	AC	DE	N	C	Key top キートップ
17	0EN84382-017/	AC	DD	N	C	Key top キートップ
18	0EN84382-018/	AC	DD	N	C	Key top キートップ
19	0EN84382-019/	AD	DF	N	C	Key top キートップ
20	0EN84382-020/	AC	DD	N	C	Key top キートップ
21	0EN84382-021/	AC	DD	N	C	Key top キートップ
22	0EN84382-022/	AC	DD	N	C	Key top キートップ
23	0EN84382-023/	AD	DF	N	C	Key top キートップ
24	0EN84382-024/	AD	DF	N	C	Key top キートップ
25	0EN84382-025/	AC	DD	N	C	Key top キートップ
26	0EN84382-026/	AD	DF	N	C	Key top キートップ
27	0EN84382-027/	AC	DD	N	C	Key top キートップ
28	0EN84382-028/	AC	DD	N	C	Key top キートップ
29	0EN84382-029/	AD	DG	N	C	Key top キートップ
30	0EN84382-030/	AB	DC	N	C	Key top キートップ
31	0EN84382-031/	AC	DD	N	C	Key top キートップ
32	0EN84382-032/	AC	DD	N	C	Key top キートップ
33	0EN84382-033/	AC	DD	N	C	Key top キートップ
34	0EN84382-034/	AD	DF	N	C	Key top キートップ
35	0EN84382-035/	AC	DD	N	C	Key top キートップ
36	0EN84382-036/	AD	DF	N	C	Key top キートップ
37	0EN84382-037/	AC	DD	N	C	Key top キートップ
38	0EN84382-038/	AC	DD	N	C	Key top キートップ
39	0EN84382-039/	AD	DF	N	C	Key top キートップ
40	0EN84382-040/	AC	DD	N	C	Key top キートップ
41	0EN84382-041/	AC	DD	N	C	Key top キートップ
42	0EN84382-042/	AC	DD	N	C	Key top キートップ
43	0EN84382-043/	AB	DC	N	C	Key top キートップ
44	0EN84382-044/	AC	DD	N	C	Key top キートップ
45	0EN84382-045/	AC	DD	N	C	Key top キートップ
46	0EN84382-046/	AD	DF	N	C	Key top キートップ
47	0EN84382-047/	AC	DD	N	C	Key top キートップ
48	0EN84382-048/	AD	DF	N	C	Key top キートップ
49	0EN84382-049/	AC	DD	N	C	Key top キートップ
50	0EN84382-050/	AC	DD	N	C	Key top キートップ

NO.	PARTS CODE	PRICE R. Ex.	PRICE R. Ja.	NEW	P/R	DESCRIPTION
51	0EN84382-051/	AC	DD	N	C	Key top キートップ
52	0EN84382-052/	AC	DD	N	C	Key top キートップ
53	0EN84382-053/	AC	DD	N	C	Key top キートップ
54	0EN84382-054/	AB	DC	N	C	Key top キートップ
55	0EN84382-055/	AG	DR	N	C	Key top キートップ
56	0EN84382-056/	AC	DD	N	C	Key top キートップ
57	0EN84382-057/	AC	DD	N	C	Key top キートップ
58	0EN84382-058/	AD	DF	N	C	Key top キートップ
59	0EN84382-059/	AD	DF	N	C	Key top キートップ
60	0EN84382-060/	AD	DF	N	C	Key top キートップ
61	0EN84382-061/	AD	DF	N	C	Key top キートップ
62	0EN84382-062/	AD	DF	N	C	Key top キートップ
63	0EN84382-063/	AD	DF	N	C	Key top キートップ
64	0EN84382-064/	AC	DD	N	C	Key top キートップ
65	0EN84382-065/	AC	DD	N	C	Key top キートップ
66	0EN84382-066/	AC	DD	N	C	Key top キートップ
67	0EN84382-067/	AC	DD	N	C	Key top キートップ
68	0EN84382-068/	AD	DF	N	C	Key top キートップ
69	0EN8300-0059/	AE	DK		C	Key top キートップ